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NEXUS

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email: editor@nexusmagazine.com



Editorial

It has been a busy year for NEXUS. After nearly 15 years in the little old house on the hill in Montville, complete with its python living in the roof and other assorted wildlife, we moved our office a few kilometres away to the iconic town of Maleny. Our new location offers the opportunity for us to set up a small NEXUS shop, which we plan to do in the coming weeks.

Also on the list of changes is the merger of NEXUS and the Alternative News Project (ANP)—the 24/7 digital news delivery service I created and launched in 2015. We'll be changing its name to the NEXUS Newsfeed and continuing with my goal of creating the first global alternative news agency to rival Reuters, Associated Press, etc.

One of the primary "jobs" of the NEXUS Newsfeed (and NEXUS Magazine, obviously) is to sort through and weed out the growing number of fake alternative news stories created by people whose only motive is to get cash out of your curiosity. Yes, "click bait" is not only polluting the screens of ordinary "news", it is being actively used to extract cash from the curious among our own ranks.

We're finding that more and more "alternative news" sites are fabricating and deliberately distorting information, purely to persuade you to click through to their sites. Often we find that stories from years ago are re-run as if they are new. And then there are the "alternative sites" that are fronts for some political or religious ideology; these sites have fewer adverts as they are funded by someone higher up.

Most good researchers and writers have their own websites, but only some of them are able to earn enough money from their sites to continue their research and writing. This is causing more and more researchers and writers to "drop out" and attend to basic financial survival matters. NEXUS Magazine is one of the few "survivors" still in print—as evidenced by the big increase in unsolicited articles we receive. It's tough to be a researcher and writer specialising in non-mainstream subjects these days.

We're also finding that the only way to sort the noise from the news is to educate our Newsfeed uploaders about whom to trust and whom to avoid.

But the situation with obtaining accurate news of any sort is worsening dramatically. Already, most Westerners are accessing news via the Facebook news feed, and increasingly via smartphones. The old mainstream media giants of print, free-to-air TV and radio are dead or dying. The preferred sources for people's news are Facebook and Google, despite the fact that they employ no journalists for the purposes of news gathering, reporting and analysis. It's a bit like Uber being the world's largest transportation company without owning a single car, or Airbnb being the world's largest accommodation company without owning a single hotel.

Facebook, Google and Wikipedia are now actively using their powers to distort and reduce our access to information about "controversial" issues. These include anything to do with climate change, alternative health, vaccinations,

Israel and Palestine, 9/11 and any line of scientific research that might be unorthodox (e.g., the ether, electricity vs gravity) or heretical (e.g., challenging the theory of evolution or the Big Bang theory).

I'd like to thank you all very much for your support over the years, and I look forward to continuing the information journey together.

Duncan

Letters to the Editor ...

Black President Prophecies

Dear Duncan:

In your last editorial [23/05], you wrote that you would not be surprised to see the 2016 United States election disrupted or a national emergency declared.

Recently I came upon a prediction made in the 1940s by a man in the US. Essentially, he claimed that he saw a future in which the US would withdraw its missiles from Europe to appease Russia and that war would result. This would happen when the US had its first President of black descent (the term used was actually "Greek", which back then was a euphemism for "black"). The new President would be elected but unable to take office. There was nothing in the prediction to indicate who the new President would be.

Various recollections (not available online) of this prophecy tell how it would come to pass. War would break out on a national holiday after the election, or the newly elected President would be assassinated. Donald Trump's provocative comment on 9 August, hinting that gun owners could take care of his rival, Hillary Clinton, has raised the spectre of assassination as never before in a US presidential election. Perhaps both events could happen. Either way, according to the prophecy the black President declares martial law, suspends the Constitution and takes control of the crisis.

Some of the recollections also mention a devastating earthquake in the western US in the Fall of 2016.

Back in the 1940s, the idea of a black US President was deemed so ridiculous and totally impossible that the whole prediction was ignored and is now largely forgotten.

Then there are the remarkable prophecies made by a blind Bulgarian woman named Baba Vanga who died 20 years ago. She predicted that the 44th US President would be black and that he would be the last US President. Obama is the 44th President.

Of course, not all predictions could possibly be true or we'd all have become nuclear ash long ago. But these prophecies about a black US President have stuck in my mind because of these unlikely specifics. We'll all see soon enough!

Warren Aston,

Queensland, Australia

Inclined Bed Miracles

Dear Duncan:

Herewith is my experience with inclined bed therapy. I've had problems with falling asleep for years, mainly due to hectic brain activity. All kinds of thoughts, information and (mainly) bad feelings were tumbling over each other and I was not able to master my thoughts. The clock was ticking for hours before I could close my eyes for a short period of sleep.

About three weeks ago the same situation occurred, but this time I had a tremendous incline in brain activity. It was like every brain cell had been put into the open position. It's hard to imagine how bad that was. I started thinking that I had some kind of brain disease.

The point was that before I went to bed that night I did fall asleep immediately, half-sitting/half-lying on the couch in my caravan. I had no brain activity, just peaceful sleep. In the middle of the night I remembered the story about inclined bed therapy, so it was time for action. I found myself an extra pillow from the sitting couch and put it underneath the pillow on my bed. I was curious as to what would happen.

Nothing happened! That is, I no longer had any brain activity, not for the good, not for the bad, but no information

at all. Blank! It was unbelievable, but my head was empty for the first time in years. As you can imagine by now, I fell into a peaceful sleep. This situation has continued for three weeks now, and I believe and hope it will stay this way.

Raising a bed in a caravan by 15 cm [~6 inches] is not that easy, but we managed by putting a lot of spare blankets underneath the top part of the mattress. My wife was rather sceptical about this, but lately mentioned that she is free of dreams and so is sleeping better as well.

To finish this mysterious story, I can claim that my kidneys are working better than before. The amount of fluid passed after leaving bed in the morning has at least tripled in volume. I remembered the remark to drink more water before sleeping.

Thanks for all those interesting articles. As always, I'm looking forward to your next edition.

Best wishes,

Joop G.

Dordrecht, The Netherlands

Indonesia's Genocides

Hi Duncan:

Craig M.'s letter "Genocide in West Papua" [23/03] opened some old wounds received when Australians realised we were complicit in that genocide. I well remember the shock at hearing the then Foreign Minister Alexander Downer, with the greatest diplomatic tact, unequivocally abandon the West Papuan people to the terrors of the Indonesian armed genocide.

There is little difference between Indonesia's treatment of the people of West Papua and those of East Timor. A secret report prepared for the Australian federal government, "The Indonesian Integration of East Timor", contained such horrors that in inner military circles it became known as "The Blue Book". Among the limited number of intelligence officials with access to it, it would become a time bomb.

Army Major Christopher Jones had access to the most highly classified intelligence flowing into Canberra. In 1978, he took over one of the most closely protected projects of the JIO (the former Joint Intelligence Organisation, now the Defence Intelligence Organisation), compiling a history of the Indonesian invasion and occupation of West Irian (West Papua). What Jones knew would have blasted apathetic Australians right out of their armchairs had they ever found out. He was so affected by the East Timor report that he described it as "a harrowing record". "You'd cry if you read it," he said. "The truth must come out some day." It *didn't*.

James Dunn is the author of the 2001 report "Crimes Against Humanity in East Timor" [pdf available at <http://tinyurl.com/holbtfm>] and was an independent consultant to the Chief Prosecutor for the United Nations Transitional Administration in East Timor (UNTAET).

Dunn noted: "The wave of violence led to very serious crimes against humanity. They include: killings, including mass murder, torture, abduction, sexual assault and assault against children, as well as mass deportation, and forced dislocation. The crimes against humanity also include the massive destruction of shelter, and of services essential to upholding the basic rights of the East Timorese... [and] a massive theft of the property of the people of East Timor."

UNTAET's officials did not plan to release the report as it names key Indonesian commanders most directly involved in planning and implementing the violence and genocide. Here you can see a clear breach of human rights by the UN in protecting a bunch of Indonesian politicians and military commanders accused of genocide. Think about that for a bit and it will tell you a great deal about how and for whom the UN really operates.

Were it not for two very brave and determined activists, Bishop Carlos Belo and Jose Ramos-Horta, it all would have been swept under the diplomatic and news editorial carpets.

In West Papua, the Indonesian military is still decimating the native Papuan people. This is not hearsay. In January 2006, 43 West Papuan asylum seekers landed on the northern coast of Australia and insisted that the Indonesian military was carrying out a genocide of the native West Papuans. The Indonesians didn't like it one bit that we gave them asylum.

Australia's aid package to Indonesia was A\$887.7 million in 2012-13 (DFAT data) and hasn't been under \$500 million since. What it means is that Australian (and US) taxpayers are sponsoring the West Papuan people's murder, and have been for a long time.

Peter M.

Queensland, Australia

Canada's Income Tax Legal

Hi Duncan:

Canadians wonder how income tax can be legal and constitutional since it feels like private property theft.

Canada, and other British Commonwealth countries like Australia, New Zealand and India, all have common law-based legal systems.

One common-law right is to own private property.

How can these opposing concepts co-exist? They can co-exist because our research shows that taxation is not private property theft. The reason is that Canada's tax laws deem Canadians' income to be Canada's public money. In law, "deem" means an assumption that becomes an agreed fact if there is no contrary evidence. Canada's Income Tax Act (ITA) uses "deem" over 3,600 times!

Because Canadians' income is deemed to be Canada's public money, income tax is not on their private property; so Canadian income tax is legal and constitutional.

As the worldwide financial situation worsens, some governments have seized or taken "haircuts" of pension funds. The Canada Pension Plan (CPP) and the Registered Retirement Savings Plan (RRSP) are also paid into and out of the public-money Consolidated Revenue Fund of Canada (CRF). As these retirement funds belong to Canada, the Canadian government can seize CPP and RRSP money.

To separate when one is handling private property and when one is handling Canada's public money, the ITA deems Canadians as a second legal person, an ITA officer. The individual (not as an ITA officer) handles private property and the individual (as an ITA officer) handles public money. The officer is usually identified with your name written in upper case. Handling public money from the CRF means that such officers are also deemed agents of Canada. Such agents handling public money owe a fiduciary duty to the public. This explains why Canada treats taxpayers/agents so harshly.

Taxpayers/agents wrongly believe that they are reporting their private property. Instead, they are deemed to be reporting Canada's public money. That is why not reporting it and not reporting it on time are tax offences!

Canadians have to apply for a Social Insurance Number (SIN) before they can receive government benefits. The application means that they agree to be legally liable. Canada's national debt is also paid out of the CRF. The application means, in addition, that Canadians agree to be liable for the national debt payments to international bankers.

There is much more information available at CanadaIncomeTaxIsLegal.is. I would be interested in exchanging income tax research with your readers from other common law-based countries.

Sincerely,

Apu



A STRANGE THING HAPPENED IN THE STRATOSPHERE

High above Earth's tropics, a pattern of winds changed recently in a way that scientists have never seen in more than 60 years of consistent measurements.

This disruption to the wind pattern—coined the "quasi-biennial oscillation" in the 1960s—did not have any immediate impact on weather or climate as we experience it on Earth's surface.

But it does raise interesting questions for the NASA scientists who observed it. If a pattern holds for six decades and then suddenly changes, what caused that to happen? Will it happen again? What effects might it have?



A predictable pattern of winds in the stratosphere recently changed in a way scientists had not seen in more than 60 years of records. (Image: NASA)

Winds in the tropical stratosphere, an atmospheric layer that extends from about 10 to 30 miles above Earth's surface, circulate the planet in alternating easterly and westerly directions over roughly a two-year period.

Westerly winds develop at the top of the stratosphere and gradually descend to the bottom, about 10 miles above the surface, while at the same time being replaced by a layer of easterly winds above them. In turn, the easterlies descend and are replaced by westerlies. This pattern is repeated every 28 months.

The record of these measurements, made by weather balloons released in the tropics at various points around the globe, dates to 1953.

The pattern never changed—until late 2015. This new pattern held for nearly half a year, and by July 2016 the old regime seemed to resume.

(Source: ScienceDaily.com, 2 September 2016, <http://tinyurl.com/zr2j27x>)

MYSTERY ANCESTOR FOUND IN FAMILY TREE OF AUSTRALASIANS

An unknown hominin species that bred with early human ancestors when they migrated from Africa to Australasia has been identified through genome mapping of living humans.

The genome analysis also questions previous findings that modern humans populated Asia in two waves from their origin in Africa, finding instead a common origin for all populations in the Asia-Pacific region, dating back to a single out-of-Africa migration event. Modern humans first left Africa about 60,000 years ago, with some heading west towards Europe and others flowing east into the Asia-Pacific region.

Previous research looking at the genomes of people living today has revealed that the Asia-Pacific arrivals mated with two hominin species they found there: the Neanderthals and the Denisovans.

But when Professor Jaume Bertranpetit at Pompeu Fabra University in Spain and his colleagues analysed the genomes of living Indigenous Australians, Papuans, people from the Andaman Islands near India and from mainland India, they found sections of DNA that did not match any previously identified hominin species.

These DNA sequences are not present in the genomes of living Europeans or East Asians, suggesting that the ancestors of these people met and bred with a mystery hominin in South Asia or the Pacific region who left their genetic legacy in the area's present-day populations.

(Source: NewScientist.com, 25 July 2016, <http://tinyurl.com/hlnuju7>)

OUR BRAINS PERFORM FEATS OF MATHS TO MAKE SENSE OF THE WORLD

Our brains are constantly carrying out complex probability calculations on the fly, all without our awareness, and they're remarkably good at it.

Princeton University researchers show in a new study how our brains combine complicated observations from our surroundings into a simple assessment of the situation that aids our behaviour and decisions. This boiled-down representation also is flexible enough to account for new information as it becomes available.

The researchers found that our brains can accurately track the likelihood of several different explanations for what we see around us. They traced these abilities to a region of the brain located just behind our eyes, known as the *orbitofrontal cortex*.

"When I try to cross the street, I'm not actually analyzing every bit of the scene," said Dr Yael Niv, an Associate Professor of Psychology at the Princeton Neuroscience Institute who co-authored the study. "I'm constructing a narrative that I base my decision on, such as That car is slowing down because of the red light'."

First author Stephanie Chan, who earned her doctorate in neuroscience from Princeton in 2016, hypothesised that the brain keeps track of these possibilities in a way that is simpler than a comprehensive description of the situation, but more complex than a single explanation. She investigated the idea that the brain calculates a distribution of probabilities for each of many distinct possibilities.

The article, "A Probability Distribution Over Latent Causes in the Orbitofrontal Cortex", was published on 27 July in *The Journal of Neuroscience*.

(Source: Princeton University, 29 August 2016, <http://tinyurl.com/jd3xgox>)

CATHOLIC CHURCH IN USA PAID BILLIONS TO SETTLE CHILD SEX ABUSE LAWSUITS

While you can't put a price on the innocence of a child, you can put a price on just how much the Catholic Church has paid out in lawsuits in the USA over its epidemic of child molestation.

According to the National Catholic Reporter, the US Catholic Church has spent nearly US\$4 billion since 1950 to keep things hush hush. That number may even be conservative.

If that amount of money were divided evenly among America's 197 dioceses, each one would get almost US\$20 million! An incredible amount of cash from hard-working people who support the good faith and intentions of the Church— people who are parents of children who have been sexually abused—is being used to cover up unfathomable crimes executed by priests.

Spanning many hundreds of years, children have suffered at the hands of child predators who remain safe in the authority and integrity of an honourable faith, yet the Catholic Church continues its fight to block bills that would extend the statute of limitations for reporting sex abuse.

(Source: Collective-Evolution.com, 12 August 2016, <http://tinyurl.com/zlqwm3h>)

SAUDI COVER-UP OF 90,000 PILGRIMS KILLED DURING THE HAJJ SINCE 2002

Documents leaked from Saudi Arabia's Health Ministry reveal that over 90,000 pilgrims lost their lives during the Hajj rituals in Mecca over the past 14 years.

The Arabic-language Beirut-based al-Akhbar newspaper said that it has 3,121 pages of documents showing that 90,276 pilgrims have died while performing their Hajj rituals since 2002. The documents contain detailed information, including the names, nationalities, ages and dates of death of the Hajj pilgrims.

Meanwhile, the official figures released by the Saudi regime show that about 3,200 Hajj pilgrims have died during 1990-2015 period.



Leaked documents reveal over 90,000 pilgrims have lost their lives during the Hajj rituals in Mecca over the past 14 years. (Image: FARStnews.com)

"This means that Saudi Arabia has not only lied to the public opinion about the Mina tragic incident, but it has been its constant policy throughout years," analysts said.

On 24 September 2015, a crowd collapse caused the deaths of at least 7,000 pilgrims who were suffocated or crushed during the annual Hajj pilgrimage in Mina, Mecca, making it the deadliest Hajj disaster in history.

(Source: FARS News Agency, 10 September 2016, <http://tinyurl.com/hybol9o>)

GERMAN EXPERIMENTS WITH GM ANIMALS ON THE RISE

Experiments involving genetically engineered/modified animals have nearly tripled in Germany in the past 10 years, driven by a burgeoning global industry that involves inventing and patenting genetically altered species for scientific research, says a new study commissioned by Germany's Green Party and conducted by the research group Testbiotech.

"This massive increase in animal testing in the genetics field is unacceptable," Nicole Maisch, the Green Party's parliamentary spokesperson for the protection of animals and consumer policy, told the newspaper *Der Westen*. "Particularly when the experiments usefulness from a medical standpoint is extremely questionable, or when the trials have revealed themselves to be unsuccessful," Maisch said, "we must not allow any more animals to be tortured."



A GM mouse with a gene related to hair growth removed from its genome, at left, next to a mouse with an unaltered genome. (Image: Wikimedia Commons)

The study found that nearly 950,000 animals were subjected to experiments in Germany in 2013 alone, and a third of those involved genetically modified animals.

Silke Strittmatter, biologist with Doctors Against Animal Experiments Germany, told the newspaper *Süddeutsche Zeitung*: "In contrast to conventional animal testing, the research on genetically manipulated animals is especially deadly. We can safely assume that up to 54 animals die for the creation of a single genetically modified animal."

Süddeutsche Zeitung noted: "To achieve the desired outcome, scientists must experiment with many variations, which in many cases involves breeding multiple generations and then killing them. In this fashion, the number of genetically altered animals is increasing, despite the fact that in the last two years, for the first time, the number of animals used for traditional experimental trials has fallen."

A race to patent and profit from genetically modified species is driving the growing global market for such creatures.

The newspaper also noted: "Researchers patent altered animals, such as 'knockout mice', and sign licence deals with corporations, which in turn aggressively market the animals to laboratories—as 'custom-manipulated rodents', for example."

(Source: CommonDreams.org, 10 August 2016, <http://tinyurl.com/jyr5fd3>)

BIG NEWS FOR EUROPE:
THE TTIP IS DEAD

Germany's Economics Minister and Vice-Chancellor, Sigmar Gabriel, has declared that the European Union should not submit to the demands of the United States and that negotiations have failed on the TTIP (Transatlantic Trade and Investment Partnership).

By saying this, he joined France's Prime Minister, Manuel Valls, as well as Secretary of State for Foreign Trade, Matthias Fekl, in declaring discussions over.

TTIP negotiations started in 2013, but after 14 "rounds" of talks dealing with 27 points not a single agreement was reached.

TTIP talks were held in secret, and not even politicians let alone the public at large, which would have had to bear the consequences of the deal, had access to the documents being "negotiated".

The key points that would have meant disaster for Europe:

- A private corporate tribunal would have had supremacy over sovereign government legislation. For example, the tribunal could have imposed "sanctions" or fines on countries whose health or safety laws caused a reduction in corporations' profits.
- Similarly in the banking sector, monetary policy would have been firmly dictated by the Federal Reserve, Wall Street and the European Central Bank.
- Agriculture policy would have been dictated by Washington, especially with regard to GMOs and ag-subsidies. Monsanto and the like would have had free access to all of Europe, and none of the EU members could have passed laws prohibiting GM food or seeds.
- Standards for health and nutrition would have been imposed by Washington, i.e., by the US Food and Drug Administration.

(Source: GlobalResearch.ca, 7 September 2016, <http://tinyurl.com/jkucqfh>)

ESP IN EEG?

STUDY FINDS THAT PEOPLE'S BRAINS SHOW A NEURAL SPIKE WHEN A FRIEND'S BRAIN IS STIMULATED

Recent research into the neuroscience of social interactions between humans has revealed fascinating details of how the brains of friends and family members (in scientific terms, brains that "operate at least in part on shared information content") can synchronise and "align" with each other.

So, given the (controversial) results from parapsychology that suggest telepathy and other "psi" talents might be real, is it possible that this "neuro-resonance" can be detected even when two people attempt to mentally interact despite being blocked from doing so via normal sensory means?

That is the question asked in a recent study titled "EEG correlates of social interaction at a distance" (see <http://tinyurl.com/zugrprs>).

Subject pairs were included based on criteria of mutual friendship of more than a decade, and experience in meditation in order to maintain prolonged, focused concentration.

The members of each pair were placed in two separate rooms approximately five metres from each other—with appropriate measures taken to block any sharing of sensory information—and their brains were monitored using an electroencephalograph (EEG).

The "sender" was told to relax, think about the "receiver", and simply "mentally transmit" what they perceive.

During a 10-minute session, the sender was given 128 "stimulations" of one-second duration each, separated by pauses of random length lasting four to six seconds (in order to avoid predictable rhythms). These stimulations were "from a light signal produced by an arrangement of red LEDs, and a simultaneous 500 Hz sinusoidal audio signal of the same length".

The receiver, sitting in their isolated room, was told to relax and be prepared to "receive stimuli" from their partner: "Your task is to mentally connect with him/her and try to perceive the stimulus he/she is receiving."

Over three days, data from 25 pairs of subjects was collected. The result: "a weak but robust response" was

detected in the EEG activity of the passive receiver, "particularly within 9-10 Hz in the Alpha range", and it was noted that "this signal was found to be statistically significant".

The researchers concluded that while the study is clearly explorative, "it is in agreement with the results observed in three different experiments by Hinterberger (2008) who observed an increase in the ERPs [event-related potentials] in the Alpha (8-12 Hz) band only in the related pairs of participants".

They added: "If further confirmed, these findings would be of huge scientific importance because they provide neurophysiological evidence of a connection—or social interaction— at distance".

(Source: DailyGrail.com, 11 August 2016, <http://tinyurl.com/z6c687z>)

5G CELLULAR TECHNOLOGY: THE NEXT GREAT EXPERIMENT WITH OUR HEALTH SAFETY

On 14 July 2016, the US Federal Communications Commission voted to approve Spectrum Frontiers, making the USA the first country in the world to open up the higher-frequency millimetre-wave spectrum for development of fifth-generation 5G wireless cellular technology. Health, safety and environmental evaluations to understand the impact on humans, wildlife and the environment have not been done.



5G cellular technology will employ higher-frequency microwaves than the current cellphone technologies of 2G, 3G and 4G. These microwaves, known as millimetre waves, won't penetrate building materials like the current technology does, so industry may need one cell antenna base station for every 12 homes.

There are grounds for concern that the widespread adoption of 5G cellular technology may have profound effects on our health as well as upon ecosystems.

(Sources: Environmental Health Trust, <http://tinyurl.com/hehg7hq>
SafeEMR.com, 17 August 2016, <http://tinyurl.com/jxr8gln>)

US, UK, AUSTRALIA COMPLICIT IN 1965 INDONESIA MASSACRE

A non-binding international tribunal at The Hague has ruled that Australia, the UK and the USA were complicit in the mass killings and human rights atrocities in Indonesia in 1965.

During that period, some 500,000 to one million people died in one of the bloodiest massacres of the 20th century.

What began as a purge of communists after a failed coup attempt, went on to encompass ethnic Chinese and alleged leftists, which led to the massacre being referred to as "politicide".

According to the ruling by the International People's Tribunal (IPT) at The Hague, the 1965 government of Indonesia committed crimes against humanity, but the finding is non-binding and carries no punitive consequences.

The judges found that allegations of "cruel and unspeakable murders" and the "unjustifiable imprisonment of hundreds of thousands of people without trial" were well founded.

"It has also been demonstrated that sexual violence, particularly against women, was systematic and routine, especially during the period 1965-1967," the report says.

The IPT demanded an apology from the present-day Indonesian government and demanded investigations and prosecutions into those perpetrators still alive. The Tribunal also demanded a public opening of archives and an unveiling of truth about the events.

According to the report, Australia and the UK "shared the US aim of seeking to bring about the overthrow of President Sukarno", and were found complicit in facilitating the massacre by using propaganda to manipulate international opinion in favour of the Indonesian Army.

"They continued with this policy even after it had become abundantly clear that killings were taking place on a mass and indiscriminate basis. On balance, this appears to justify the charge of complicity," it says.

The details of the crimes committed by the Indonesian Army, which include brutal murder, imprisonment under inhumane conditions, enslavement, torture, forced disappearance and sexual violence, can be found in the full text of the report (available at <http://tinyurl.com/japyfpc>).

(Source: SputnikNews.com, 21 July 2016, <http://tinyurl.com/jr7jp28>)

WAR IN SYRIA: A BATTLE FOR CONTROL OF PIPELINES

German online newspaper *Deutsche Wirtschafts Nachrichten* has provided analysis on the conflict in Syria, noting that the severest clashes occur only in places of major pipelines or where new routes are planned. The newspaper says that the conflict is nothing more than a fight to pipe oil and gas supplies to Europe.

"Two of the most important oil markets are located in the Syrian cities of Manbij and al-Bab; both cities are located in the Governorate of Aleppo," the paper says. "Through the territories of the two cities runs a major pipeline which transports oil from Iraq to Syria..."

According to the analysis, whoever takes Manbij takes control of the oil transportation in Syria. So far in the Syrian conflict, Turkey has had no access to the oil pipelines; but by taking Manbij, Ankara will have access to the Syrian pipeline system.

"The current battle for Aleppo is viewed as the most decisive in the ongoing conflict. Whoever controls Aleppo controls the keys of the pipeline," according to the analysis.



The Syrian war map shows that the US concentrates its air strikes on the east of the country, while Russian air strikes are mainly focused on the western areas. Therefore, Russia wants to control western Syria in order to prevent the construction of proWestern pipelines, while the US in turn wants to prevent the construction of pro-Russian pipelines, such as the Iran-Iraq-Syria pipeline in the east.

Reports from the Caucasus Strategic Research Centre suggest that the US had plans to build a new pipeline from the Persian Gulf to northern Iraq and further to Turkey through northern Syria. However, the plan to set up the Kurdish corridor failed because Russia stepped into the Syrian conflict.

(Source: SputnikNews.com, 6 September 2016, <http://tinyurl.com/h2vg6ap>)

CHINA'S QUANTUM SATELLITE LEADS THE WORLD

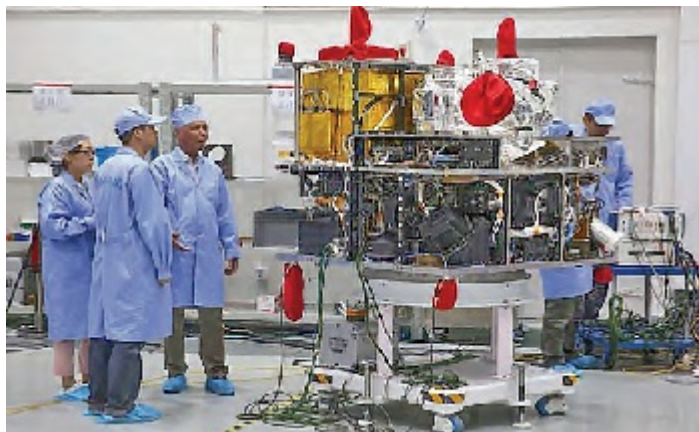
China has launched the world's first quantum science satellite into space, with the project carrying the hopes of scientists around the world.

But its first mission, to establish a hack-proof communication line between China and Europe, will also have major national security implications.

At 1.40 am [16 August], the small satellite, recently named Micius after an ancient Chinese philosopher and engineer, began a journey into the big unknown on top of a Long March 2D rocket launched from the Jiuquan Satellite Launch Centre in Inner Mongolia's Gobi Desert.

Eight years ago, quantum physicist Pan Jianwei and space engineer Wang Jianyu teamed up to build the world's first quantum satellite in the hope of finding the portal to a whole new universe.

"Pan has some big ideas; my job is to squeeze them into a satellite," Professor Wang, commander-in-chief of China's Quantum Science Satellite (QSS) project, told the *South China Morning Post*.



The Chinese Quantum Satellite (Image: Hacked.com)

The team had been looking for a proper name for the QSS, and chose Micius not only because it fits the pioneering nature of the experiments, but also as a nod to Chinese culture. More than 2,400 years ago, the Chinese philosopher Micius [a.k.a. Mozi or Mo Di] proposed that light always travels in a straight line and that the physical world is made up of particles. He also built the world's first pinhole camera.

The QSS project began at the Shanghai Institute of Technical Physics, a subsidiary of the Chinese Academy of Sciences, in 2008.

The satellite will be looking for a universe different from Einstein's— one where a cat can be alive and dead at the same time, where bits of information can be "teleported" from one galaxy to another faster than the speed of light, where the Internet cannot be hacked, and where a calculator can run faster than all the world's supercomputers combined.

The technology has obvious military value, and Micius would have ended up as a secret military satellite if not for a rare fight led by Professor Pan and other Chinese scientists against the generals of the People's Liberation Army.

The Chinese scientists' efforts won respect and applause from colleagues and competitors in Europe, the United States, Russia, Canada and Japan who had proposed similar plans to take quantum technology into space to their governments, only to face delays or postponements for a range of reasons, including budget cuts.

Professor Anton Zeilinger, who was Pan's mentor when he was a PhD student in Vienna and now leads a quantum satellite project in Europe, said the launch of Micius would benefit everyone.

"The quantum satellite will for the first time prove that quantum communication on a worldwide scale is possible," he said. "This is a crucial step to the future quantum Internet."

(Source: South China Morning Post, 16 August 2016, <http://tinyurl.com/jlwl4uc>)

AUSTRALIA TO BAN COSMETICS ANIMAL TESTING AND TRADE

Using live animals to test the safety of cosmetics will be banned in Australia by July 2017, the Federal Government pledged, following a two-year campaign by #BeCrueltyFree, led by Humane Research Australia and HSI (Global).

Hannah Stuart, from the #BeCrueltyFree Australia campaign, said: "Using live animals to cruelly test new ingredients for cosmetics such as hair dyes and skin cream is ethically unjustified. There is a growing global trend towards eliminating the sale of newly animal-tested beauty products and their ingredients, and [the 2 June] announcement will put Australia on the map as the next country to say no to cosmetics cruelty.

"Without a legislative sales ban there is nothing to prevent cosmetics animal testing taking place here in Australia, or overseas during development of products sold in our shops. Such bans are already in place across the European Union, Israel and India, and there is now growing worldwide momentum towards ending the marketing of cruel cosmetics."

(Source: Humane Society International, 3 June 2016, <http://tinyurl.com/zp8wt6l>)

WHY ARE THE PYRAMIDS NOT MENTIONED IN THE BIBLE?

Whenever we say "the Exodus", everybody unconsciously and instantly recognises the story as the fleeing of the Israelites headed by Moses from the grip of Egypt's ruthless Pharaoh.

Thanks to Hollywood films, this Exodus story has sunk deep into the collective subconscious of the masses, so deep that the story of Moses and the pharaoh has turned into an almost unshakable historical truth that once took place in ancient Egypt.

But actually nothing in the "milieu" of that story indicates that it happened in Egypt, except maybe the mistaken association between "pharaoh" and "king" of Egypt.

Likewise, nothing in ancient Egyptian records or its oral tradition says or even alludes to the fact that this tale of Moses really happened in Egypt. Even more shocking is the fact that the ancient Egyptian records do not refer to the kings of Egypt as "pharaohs". "Pharaoh" was never a title for Egypt's king.

The only reason we think the story of the Exodus happened in Egypt is because the Bible says so. We keep on believing that is the case because mainstream Egyptologists just went along with the biblical narrative and absent-mindedly designated Egypt's kings as pharaohs.

But if we examine the Hebrew text that the Bible used as a reference, we will strangely not find Egypt mentioned in it as the site/land of the Exodus story.

The whole mess/deception took place during translating the Hebrew/Aramaic stories into Greek back in the third century BC. This is when Egypt was first hijacked and forcibly placed in the Hebrew Bible as the theatre of the Israelite landmark stories. Ironically, this whole act of duplicity took place on Egyptian soil and specifically at its legendary Library of Alexandria.

Have you ever wondered why the Egyptian pyramids and temples are not mentioned in the Bible? Do you know that Egypt is mentioned in the Bible about 600 times?

On the other hand, do you have any idea how many times Israel/Israelites is mentioned in the Egyptian records? Only once.

We were spoon-fed the idea that the Israelites were kept in bondage for almost 400 years (some say 260 years) in Egypt, and yet all of their stories are devoid of any trace of Egyptian influence.

Moreover, and to our amazement, slavery was not a common practice in ancient Egypt in the first place. Unlike the pervasive culture of slavery in the Israelite stories, ancient Egypt never had a public market for trading slaves.



The Giza pyramids and necropolis, Cairo, Egypt (Image: WikiCommons)

Everything about ancient Egyptian culture, its art, architecture, monuments, people, theology, mythology and

pantheon of gods, is uniquely strong and influential even to this very day. One would expect to find some trace of Egyptian cultural influence in the Israelite history and narrative after such a long sojourn in the land of the Nile Valley, but that is hardly the case.

Though the Israelites only spent about 70 years in the Babylonian captivity, that short period was documented by both the Israelites and the Babylonians, and reference to it is also found in the Persian records.

On the other hand, the Hebrew Bible claims that the Israelites sojourned in Egypt for hundreds of years and yet we fail to find any extrabiblical documentation or mention either of the Israelites' sojourn or their Exodus in the Egyptian records, or non-Egyptian for that matter.

There isn't even any mention of the pyramids, among the wonders of the ancient world, in the Israelite stories.

Most foreign historians and military leaders who came to Egypt from late antiquity onwards, like Alexander the Great, Strabo, Diodorus Siculus and of course Herodotus, were keen to mention and document their memories and commentaries about the famous site.

But when it comes to the Israelites, their Hebrew Bible is totally silent about not only the pyramids but also any feature of ancient Egyptian culture or architecture.

(Source: Dr Ashraf Ezzat, 24 July 2016, <http://tinyurl.com/j6h37k3>)

EFFECTS OF EXTERNAL QI ENERGY ON PLANT DNA AND CELLULAR GROWTH

A paper titled "Seeds induced to germinate rapidly by mentally projected 'qi energy' are apparently genetically altered" was published in the American Journal of Chinese Medicine in 2000.

According to the paper, a woman named Chulin Sun was able to accelerate the germination of specific seeds for the purpose of developing a more robust seed stock.

"Chulin Sun is a woman with exceptional powers... A member of the Chinese Somatic Science Research Institute, she is a practitioner of *Waiqi*. Waiqi is a type of qigong that teaches the practitioner to bring the qi energy of traditional Chinese medicine under the control of the mind.

"Chulin Sun can induce plant seeds to grow shoots and roots several cm long within 20 min using mentally projected qi energy. This has been demonstrated on more than 180 different occasions at universities as well as science and research institutions in China...as well as other countries.

"We took part in and repeated the qi germination experiments seven times, and five of them succeeded. This remarkable effect on seed development has drawn widespread attention..., but the biological mechanisms that underlie this phenomenon are unknown.

"It will be of great significance to study the influence of qi energy on metabolism, growth and development, and gene expression, especially since these effects may be relevant to human health and longevity.

"Seeds treated with qi energy can germinate and root for several cm within about 20 min. It takes control seeds at 23 [degrees] C a week to grow to the same length. This qi effect is impossible under normal rules of growth and development. According to earlier work, qi energy can change the structure of some cellular organs such as the mitochondria...and also influence the metabolism of cells.

"In the present study, qi increased the rate of cellular growth and division hundreds of times. This requires that the cells produce a great deal of energy within about 20 min. We observed the ultrastructure and the chemical location of ATPase. The expected results were obtained: qi induced a large increase of ATPase activity in the bud tip cells of the germinating wheat seeds. This can supply more energy during rapid cell division, growth and differentiation that occurs during accelerated germination.

"Enzymes are the products of genes, so we can infer that it is a germination-correlated gene that broke through the limits of time and space; that the structure of a promotor or regulatory region was changed, initiating expression in advance. RAPD [random amplified polymorphic DNA] analysis gives preliminary support to this deduction."

(Sources: Collective-Evolution.com, 6 March 2016, <http://tinyurl.com/z3hhxtp>
American J. Chinese Medicine 2000; 28[i]:3-8, <http://tinyurl.com/gsm33fk>)

PRESCRIPTION DRUGS ARE KILLING 100,000 PEOPLE EVERY YEAR IN THE USA

Peter Gøtzsche, MD, co-founder of the Cochrane Collaboration (the world's most foremost body in assessing medical evidence), is currently working to inform the world about the dangers associated with several pharmaceutical drugs.

Based on his research, he estimates that 100,000 people in the USA alone die each year from the side effects of correctly used prescription drugs, noting that "it's remarkable that nobody raises an eyebrow when we kill so many of our own citizens with drugs".



Professor Gøtzsche, head of the Nordic Cochrane Centre in Denmark, has published many papers arguing that our use of antidepressants is causing more harm than good.

A recent study, co-authored by Gøtzsche and published in the *British Medical Journal* (27 January), showed that drug companies are not disclosing all the results of their drug trials tests of SSRIs and SNRIs and found that the full extent of serious harm in clinical study reports has gone unreported.

(Source: Collective-Evolution.com, 25 July 2016, <http://tinyurl.com/zn5jt4h>)

DID THE FBI ARREST ONE OF ITS OWN INFORMANTS FOR BEING PART OF ONE OF ITS "OWN PLOTS"?

For a few years now, TechDirt has been writing about how the FBI has been arresting a ton of people for "terrorism" who were really guilty of little more than being gullible and naive and pushed by FBI undercover agents and informants into taking part in plots that wouldn't exist but for the FBI itself.

These so-called "own plots" seem to be a huge part of what the FBI does these days. Somewhat ridiculously, courts have (mostly) allowed these, claiming that if, eventually, the accused person expressed some support for terrorism or terrorist groups, it shouldn't be considered entrapment.

But, over and over again, you see cases where it's clearly the FBI doing not just the majority of the plotting, but also pushing and pushing targets to "join" the plots, even when they show sustained resistance. The more details you read about these cases, the more ridiculous they get.

However, in just the latest example of this—the arrest of Erick Hendricks for supposedly trying to recruit people to carry out attacks for ISIS— there's been something of an odd twist. Hendricks claims he has no idea why he was arrested because he's been an FBI informant for years, helping the Bureau find other gullible souls to entrap in these "own plots".



Is it possible that the FBI lost track of one of its own informants and ended up having him "caught" in one of the plots where he thought he was helping the FBI find possible terrorists? Perhaps Hendricks is making it up, but the FBI's network of informants is in a state of confusion. Either way, if Hendricks really was an informant, it appears that the "plots" he was engaged in may have involved confidential informants or undercover agents.

This sounds like the plot to a potentially entertaining movie—but back in the real world, it seems pretty mucked up. And it's yet another reminder of just how stupid these FBI "own plots" really are, as they don't really seem to be about keeping people safe from attacks.

Instead, the FBI seems to be figuring out ways to push gullible and naive people to agree to do stupid things so that the FBI can get headlines for "keeping us safe" from attacks that would never actually happen.

(Source: TechDirt.com, 15 August 2016, <http://tinyurl.com/zgph6j6>)

SCIENTISTS PROPOSE THE HUMAN "QUANTUM BRAIN"

Scientists in China have proposed a new theory that explains why humans are so much more intelligent than animals, even though our brains are often much smaller than those of other species.

Researchers at the Wuhan Institute of Neuroscience and Neuroengineering have previously carried out studies backing the theory that the brain processes and passes on information not only through electrical and chemical signals, but also with photons of light.

In their latest study the Wuhan researchers, led by professor Dai Jiawei, suggested two years ago that neurons, the nerve cells in the brain that transmit information, emit extremely faint "lights", photons, stimulated by a chemical called glutamate and detectable only with the most sensitive equipment, but capable of transmission along brain fibres and circuits.

The key finding is that human brains are able to create information-relaying photons using much less energy, enabling Homo sapiens brains to operate more speedily and efficiently than brains of other species.

The hypothesis that our brain also operates using other mechanisms— a quantum consciousness—rather than just electrical and chemical signals has been around for decades. Its supporters have included the physicist Eugene Wigner, Nobel Prize laureate in 1963, and more recently the eminent physicist Sir Roger Penrose at the University of Oxford, who has suggested that the human brain is more complex than a galaxy.

These theories include the idea that the brain transmits nonelectrical particles, a form of physics which also underpins the idea of the quantum computer.

(Sources: DailyGalaxy.com, 18 August 2016, <http://tinyurl.com/gnnzy3n>
SCMP.com, 11 August 2016, <http://tinyurl.com/zdf74nr>)

GLYPHOSATE HERBICIDE FOUND IN MOST VACCINES

Research scientist Anthony Samsel has confirmed that glyphosate, a key active chemical in Monsanto's herbicide Roundup®, has been found as a contaminant in most vaccines.

One of the most important biochemical reasons for getting to the "bottom" of the glyphosate fiasco being perpetrated upon US and global citizens by the chemical and agricultural industries is that glyphosate is supposedly "safe"! Nothing is further from the scientific facts. Not only are humans exposed to glyphosate from numerous sources, e.g., herbicides, pesticides, sprays, GM crops/foods/ingredients as residues in processed foods, we now have confirmed scientific research and numerical data that glyphosate is present in vaccines which are injected into infants, toddlers, teens and adults.

According to the 2014 paper "Major Pesticides Are More Toxic to Human Cells Than Their Declared Active Principles", published in BioMed Research International:

"Pesticides are used throughout the world as mixtures called formulations. They contain adjuvants, which are often kept confidential and are called inert by the manufacturing companies, plus a declared active principle, which is usually tested alone.

"We tested the toxicity of 9 pesticides, comparing active principles and their formulations, on three human cell lines (HepG2, HEK293, and JEG3). Glyphosate, isoproturon, fluroxypyr, pirimicarb, imidacloprid, acetamiprid, tebuconazole, epoxiconazole, and prochloraz constitute, respectively, the active principles of 3 major herbicides, 3 insecticides, and 3 fungicides. We measured mitochondrial activities, membrane degradations, and caspases 3/7 activities.

"Fungicides were the most toxic from concentrations 300-600 times lower than agricultural dilutions, followed by herbicides and then insecticides, with very similar profiles in all cell types.

"Despite its relatively benign reputation, Roundup was among the most toxic herbicides and insecticides tested. Most importantly, 8 formulations out of 9 were up to one thousand times more toxic than their active principles.

"Our results challenge the relevance of the acceptable daily intake for pesticides because this norm is calculated from the toxicity of the active principle alone. Chronic tests on pesticides may not reflect relevant environmental exposures if only one ingredient of these mixtures is tested alone."

According to a 2013 study in Toxicology, glyphosate is known to "promote endocrine disrupting effects after entering cells". The researchers investigating formulations as mixtures noted:

"Since pesticides are always used with adjuvants [the same as vaccines use adjuvants] that could change their toxicity, the necessity to assess their whole formulations as mixtures becomes obvious."

(Source: ActivistPost.com, 6 September 2016, <http://tinyurl.com/zkqvntv>)

CASHLESS SOCIETY PROPOSED TO SAVE GLOBAL ECONOMY

Could killing cash save the global economy? That's the argument made by two influential economists in recent months. The first of these is Kenneth S. Rogoff, whose book *The Curse of Cash* has been doing the rounds of the financial press.

The second is Marvin Goodfriend, who recently made an aggressive argument for the use of negative interest rates at the Federal Reserve's annual retreat at Jackson Hole. A corollary of his argument is the necessity of abolishing paper money, an attraction that also forms a central plank of Rogoff's book.



As for the technological change, Rogoff argues that the time has come for governments to seriously consider a cashless society. He makes broader arguments, too, reflective of the increasing frustration of many with cash.

Cash has always been a risk for businesses—something they have to collect, guard and deposit (or have picked up). For law enforcement, cash is a nightmare. It enables criminal spending and money laundering, which would be much harder in a world where all transactions were tracked.

(Source: Crikey.com.au, 31 August 2016)

Black Swans Circling Over European Banks

Italian and German banks are in dire straits with plummeting share values, negative interest rates and failed attempts to recapitalise. If Deutsche Bank, Germany's largest, comes crashing down, this will have a disastrous impact on all the European banks and the global financial system.

by Karen Mutton

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Email: kazganymede@yahoo.com.au

Website: <http://www.karen-mutton.com>

The Brexit Vote Shock

The term "black swan event" was popularised by finance professor and former Wall Street trader Nassim Nicholas Taleb to describe chaotic events of an economic nature that are typically random and unexpected.

The most important black swan event so far in 2016 would have to be the Brexit referendum of 23 June, which saw 51.9 per cent of Britons voting to leave the European Union (EU).

The United Kingdom, which joined the European Community in 1973, has the world's fifth-largest economy and is currently still a member of the EU. When the Maastricht Treaty was signed in 1992 to create a single European currency, Britain decided to maintain the pound as its currency instead of adopting the euro.

The European Union is a political-economic union of 28 member states, and has policies to ensure the free movement of people, goods, services and capital within the internal market. The eurozone consists of 19 countries that use the euro, while other countries like the UK, Denmark and Sweden are EU members but do not use the euro.

Article 50 of the 2007 Treaty of Lisbon gives a member state the right to withdraw from the EU and allows two years to exit after giving official notice. Article 50 has never before been invoked, and no other nation has ever left the EU.

British Conservative Party Prime Minister David Cameron promised to hold an in-out referendum on EU membership before 2017, despite being in favour of remaining in the Union. The affirmative vote for Brexit shocked the world, forcing Cameron to announce his resignation on 24 June and resign officially on 13 July. In another shock move, UK Independence Party leader and Brexit advocate Nigel Farage resigned as head of his party on 4 July.

Stock markets around the world plunged, the pound dropped to 30-year lows and Britain's creditworthiness was downgraded to "negative" within days of the Brexit vote. On 24 June, US\$2.08 trillion was wiped off global stocks, especially in Europe.

The shock of the Brexit vote and its effect on European stock markets brought into focus the fragile economic state of many European countries and banks, particularly those in Italy. At least half a dozen European banks present potential black swan events in the coming months.

Italian Banks Exposed

The term *le sofferenze* ("the sufferings") refers to bad debts in Italy. Known also as "non-performing loans" (NPLs), these debts of 360 billion euros constitute more than 18 per cent of Italian banks' loans, by far the highest in the eurozone.

By contrast, British banks' bad loans amount to less than 1.5 per cent while French loans in distress are below 5.0 per cent. These bad debts make the Italian banking system the most vulnerable and dangerous in Europe.

In April 2016, the Italian stock market regulator CONSOB approved the creation of a new fund called Atlante, or Atlas in English, to help shore up some of the country's troubled banks. Financed by stronger banks and insurers, it received more than 4.5 billion euros, which was woefully inadequate, although the fund did manage to acquire the scandal-ridden Banca Popolare di Vicenza.

In late June, Atlante also took control of Veneto Banca after it was unable to come up with a 1.0-billion-euro capital increase demanded by the EU bank regulators.

These two bailouts almost depleted the Atlante fund, leaving Italy with over 200 billion euros in NPLs. Prime Minister Renzi hoped to allow Rome to recapitalise Italian banks after the turmoil unleashed by the Brexit vote, but such public-funded bailouts are banned by eurozone regulations.

German Chancellor Merkel refused to make allowances for Italy's beleaguered banking system beyond a "precautionary" scheme that allows Italy to help banks with short-term liquidity problems. However, only solvent banks are eligible for this scheme.

Unfortunately for Italy, its debt capacity as a sovereign nation has now topped out, which means that any new debt incurred to bail out banks will promptly result in the downgrading of Italy from a "triple-B-plus" (Fitch), which is two notches above junk. The only way that the Atlante fund can be recapitalised by a further 5.0 billion euros is by drawing money from pension funds, the state or foreign investors.

Adding to the Italian banking system's problems is Banca Monte dei Paschi di Siena (BMPS), which is now in need of a third bailout. In 2013 it bailed-in junior bondholders. The world's oldest and Italy's third-largest bank has 50 billion euros in bad loans and has seen its share value drop by a dramatic 79 per cent already in 2016.

In July, the European Central Bank (ECB) ordered BMPS to reduce its share of bad loans from the current 30 per cent to 20 per cent by 2018. Moody's downgraded the bank's credit rating by two notches to "Ca", which is one notch above default.

Under the EU's new Bank Recovery and Resolution Directive (BRRD), which came into effect in January 2016, governments are prohibited from bailing out banks without first forcing shareholders and bondholders to take huge losses. However, Italy's bank creditors include millions of ordinary Italians who own around 200 billion euros of bail-in eligible bank bonds. Another bail-in of Italian banks, after widespread protests followed the bail-in of four small banks in late 2015, would be politically damaging for the Renzi government.

The risk of contagion for other EU banks exposed to Italian banks is serious. The total exposure of French banks to Italian debt exceeds 250 billion euros, while German banks hold 83.2 billion euros (including Deutsche Bank's 11.76 billion euros), Spain holds 44.6 billion euros and the UK holds 29.77 billion euros.

European Banks Stress Tests of 2016

A bank stress test is an analysis conducted under unfavourable economic scenarios designed to determine whether a bank has enough capital to withstand the impact of adverse situations. The European bank stress tests of 2016 covered 51 banks and were instituted by the European Banking Authority (EBA) to detect problems in the EU.

On 29 July 2016, the results of European bank stress tests were published. As expected, BMPS performed the worst of all the banks, indicating that its capital would be wiped out during the exam's toughest scenario. BMPS and Allied Irish Banks fell below the minimum capital requirement of 4.5 per cent demanded by regulators.

According to Tyler Durden of Zero Hedge:

"Needless to say, the test—as structured—was a farce from the beginning as it did not account for negative interest rates, something Europe has trillions of, nor did it test for Brexit. Finally, the test did not include any banks from Greece [or] Portugal, where virtually all banks are currently insolvent.

"While the exam of 51 lenders is breaking with past practice by having no pass/fail mark, it's intended to give supervisors across the European Union a common basis for measuring and bolstering lenders' financial resilience. The test has taken on additional importance as the Italian government weighs methods to shore up Monte Paschi, and the capital shortfall identified in the test may open the door to public support."¹

The day after the results of the stress tests were announced, a three-pronged rescue plan for BMPS was launched, involving the transfer of bad debt into a securitisation vehicle and the recapitalisation of the bank to 5.0 billion euros through the sale of shares and by utilising the Atlante fund.

While bad debts will be removed from the balance sheet of BMPS, shareholders will be almost entirely wiped out. Only time will tell if these measures save BMPS.

Within days of the announcement, other Italian banks saw their share prices tumble. UniCredit, Italy's largest bank, plunged 9.4 per cent during the first week, with shares trading halted for three days in a row.

According to the website Express.co.uk:

"UniCredit added to these jitters on Wednesday [3 August] when it revealed that its core capital—a key measure of financial strength—fell to 10.33 per cent in June from a pro-forma level of 10.85 per cent three months ago.

"The drop hit UniCredit's shares as it intensified expectations the bank will be forced to launch a multi-billion-euro stock sale to bolster capital levels that lag behind its rivals."²

UniCredit shed nearly 20 per cent of its stock value in August, falling below 2.0 euros per share. It also posted the sixth-worst result of the 51 banks in the stress tests.

German Banks in Trouble

On 6 July 2016, Italian Prime Minister Renzi took an indirect swipe at German banks during a press conference with Swedish Prime Minister Stefan Lofven.

He said that other European banks have much bigger problems than their Italian counterparts:

"If this non-performing loan problem is worth one, the question of derivatives at other banks, at big banks, is worth one hundred. This is the ratio: one to one hundred..."³

Renzi was referring to Deutsche Bank, which currently has the largest derivatives holding of any bank in the world. His concerns are valid.

Deutsche Bank, with total assets of US\$1.901 billion in 2015, is the largest bank in Germany and the fourth-largest bank in Europe after HSBC, BNP Paribas and Credit Agricole.

In the stress tests, German banks posted four of the 10 biggest falls in capital strength in the adverse scenario model.

Deutsche Bank may have "passed" the stress tests, but its share value tumbled to its lowest level since 1982. Other German banks in trouble include Commerzbank and Bremer Landesbank (BLB).

The week that the results of the stress tests were released also saw the share value of Commerzbank, Germany's second-largest bank, fall to an all-time low.

According to Express.co.uk on 4 August:

"The stricken bank, whose shares plunged to record lows today, said it had been severely weakened by the European Central Bank (ECB) setting negative interest rates.

"It had already performed poorly in a stress test of Eurozone financial institutions last week alongside compatriot Deutsche Bank, raising fears about the strength of the German economy post-Brexit."⁴

As a result of its dire financial situation, Commerzbank has planned to charge ordinary people for everyday transactions involving deposits, credit cards and over-the-counter transfers in branches.

Unlike Italy's banks, Germany's banks are not suffering from non-performing loans. Compared to Italy's 16.6 per cent of NPLs, the German bank ratio was just 3.1 per cent in March, below the EU average of 5.7 per cent.

According to the *Financial Times*:

"Instead, the problem is a chronic lack of profitability. The German banking sector's return on equity was just 2.6 per cent in the first three months of the year, according to the EBA. That made it the third-worst performer in the EU, ahead of only Greece and Portugal."⁵

Furthermore, smaller banks like Landesbanken, HSH Nordbank and Nord/LB are battling with exposure to the ailing shipping industry.

World trade in commodities, which determines the Baltic Dry Index, has dramatically declined in 2016.

German banks have also been adversely affected by negative interest rates as they traditionally derived a chunk of their earnings from net interest income. The ECB's 0.4 per cent levy on excess deposits will cost German banks 787 million euros, according to analysts at Deutsche Bank. Both Deutsche Bank and Commerzbank have passed on negative rates to big corporate clients.

Fresh on the heels of the Italian banks' requests for bailouts, the chief economist of Deutsche Bank, David Folkerts-Landau, called for a multibillion-dollar bailout for European banks. Bremer Landesbank is struggling under the weight of bad shipping loans and is likely to face a triple-digit million euro loss in 2016.

When it became apparent in early July that the bank would not be bailed out, the value of BLB's CoCo bonds (contingent convertible bonds, also known as bail-in bonds) dropped by over 25 per cent in one day.

The irony of German banks' requests for bailouts after German Chancellor Merkel refused to bail out Italian banks is glaringly obvious. Merkel is unable to bail out German banks without granting the same privilege to Italian banks.

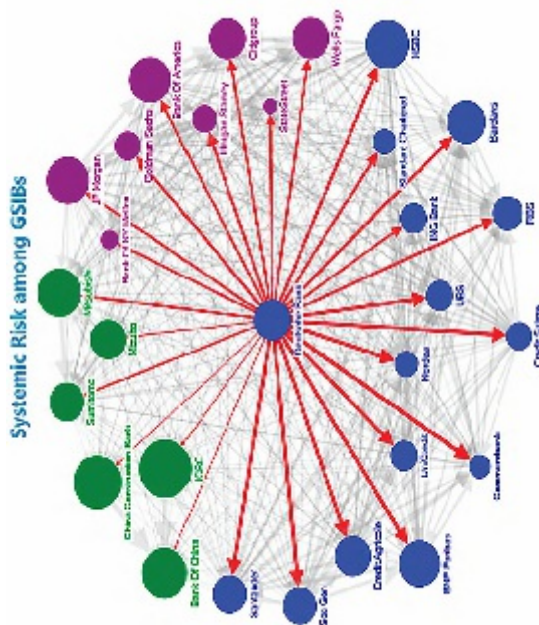
Distress at Deutsche Bank

Since 2014, there have been ominous signs that Germany's largest bank is in serious trouble.

- In April 2014, Deutsche Bank (DB) was forced to raise an additional 1.5 billion euros of Tier I capital.
- In May, DB announced the selling of 8.0 billion euros of stock at a steep discount in a move to raise capital.
- In March 2015, DB failed the stress tests and was warned to shore up its capital structure.
- In April, DB had to pay a massive US\$2.1-billion fine for its manipulation of the LIBOR (London Interbank Offered Rate).
- In June, following the failure of Greece to pay its debt to the International Monetary Fund (IMF), DB's two chief executive officers, Anshu Jain and Jurgen Fitschen, announced their surprise resignations from the bank.
- On 9 June, Standard & Poor's lowered the rating of Deutsche Bank to "BBB+", which is just three notches above "junk".
- In August, the new US Attorney General Loretta Lynch decided to go after foreign banks like Deutsche, which had packaged and sold shoddy CDOs (collateralised debt obligations) before the 2008 crisis.
- DB's new CEO John Cryan announced a shedding of 23,000 jobs from September.
- Between early 2014 and September 2015, DB share values fell 40 per cent to below 29 euros per share.
- By January 2016, DB share values had dropped to 12 euros after a 6.7-billion-euro loss was announced.
- In May, Berenberg Bank noted that DB is over 40 times leveraged.
- The 23 June Brexit decision hit DB hard, as it is the largest European bank in London and receives 19 per cent of its revenues from the UK.

However, it is not only the fact that Deutsche Bank's second-quarter net income was down by 98 per cent from the same period in the previous year to 20 million euros, or the fact that its share values have plunged over the years, which makes it the world's riskiest bank.

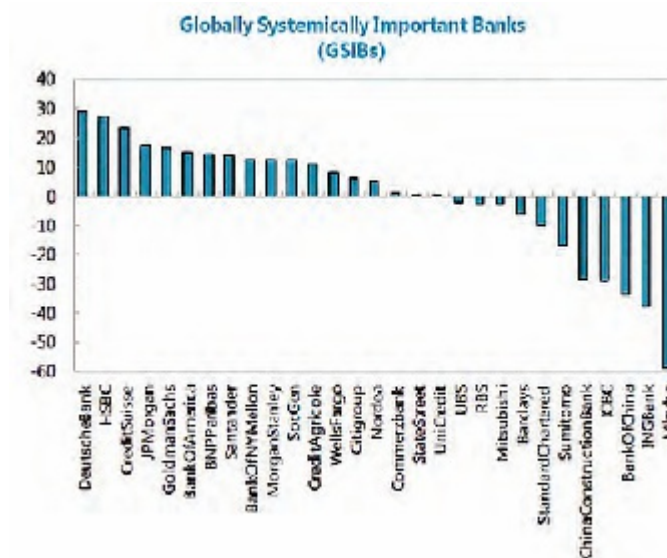
It currently has 42 trillion euros of exposure to derivatives, an amount which is 13 times the size of the entire German economy.



As this diagram shows, Deutsche Bank is at the hub of global systemically important banks (GSIBs). It has to be saved or it could bring down not only the eurozone banks but the world's major banks as well. (Source: IMF Country Report No. 16/189, Germany, June 2016, figure 15, page 31, <http://tinyurl.com/ze5zjlf>)

The June 2016 IMF report on Germany states:⁶

"24. Domestically, the largest German banks and insurance companies are highly interconnected... The highest degree of interconnectedness can be found between Allianz, Munich Re, Hannover Re, Deutsche Bank, Commerzbank and Aareal [B]ank, with Allianz being the largest contributor to systemic risks among the publicly-traded German financials. Both Deutsche Bank and Commerzbank are the source of outward spillovers to most other publicly-listed banks and insurers. Given the likelihood of distress spillovers between banks and life insurers, close monitoring and continued systemic risk analysis by authorities is warranted."



This graph shows Deutsche Bank, HSBC and Credit Suisse as the world's most important banks. This also makes them the riskiest banks in the world. (Source: IMF Country Report No. 16/189, Germany, June 2016, figure 15, page 31, <http://tinyurl.com/ze5zglf>)

"26. Among the G-SIBs, Deutsche Bank appears to be the most important net contributor to systemic risks, followed by HSBC and Credit Suisse... In turn, Commerzbank, while an important player in Germany, does not appear to be a contributor to systemic risks globally. In general, Commerzbank tends to be the recipient of inward spillover from U.S. and European G-SIBs. The relative importance of Deutsche Bank underscores the importance of risk management, intense supervision of G-SIBs and the close monitoring of their cross-border exposures, as well as rapidly completing capacity to implement the new resolution regime."

Deutsche Bank's John Cryan has embarked on a drastic plan to meet the bank's capital targets, including scrapping dividend payments to shareholders, forcing asset sales and implementing thousands of job cuts. Time will tell if the bank is able to survive without being carved up into a "good" and "bad" bank or if it will fall and bring down the whole banking system.

A New Global Financial Crisis?

Although this article has concentrated on Italian and German bank risks, the British, Spanish, Portuguese and Austrian banks are also struggling.

In early June, the Belgium-based Optima Bank was shut down by both the ECB and the National Bank of Belgium after some potentially fraudulent transactions were discovered. Prior to this action, Optima had tried to attract new customers with high interest rates in a desperate bid to increase capital.

The National Bank of Belgium had already effectively taken control of Optima by appointing a special commissioner to approve all transactions. Neither measure was successful, and the bank was declared insolvent in early July 2016.

The dire state of most European banks is still a developing story. No one is sure which bank will become the "Lehman" of Europe; but should Deutsche Bank be the first domino to fall, we can be assured that chaos will not only envelop European banks but the global financial system itself.

About the Author:

Karen Mutton is an independent researcher and retired history teacher living in Sydney, Australia. Her current research effort is focused on the tenuous state of the global economic and banking structures and how a future collapse will affect our lives and finances.

Her articles "Towards an Economic Reset in 2015-16", "Global Currency Reset", "Pension Confiscations, Bank Bail-ins and Levies" and "The Cyprus Template: Bank Deposits at Risk" were published in NEXUS 22/04, 21/03, 21/02 and 20/05 respectively.

Her book *Threats to Our Wealth* was reviewed in NEXUS 21/06 and is being updated as an e-book.

Karen Mutton can be emailed at kazganymede@yahoo.com.au

For more information, visit her Facebook page and website <http://www.karen-mutton.com>

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The Bacterial Cause of Alzheimer's Disease

An infectious cause of dementia was being investigated in the 18th century, well before Alois Alzheimer concluded he had discovered a new disease in 1906. Yet Alzheimer even disregarded his contemporaries' research that suggested a link with tuberculosis.

by Lawrence Broxmeyer, MD

© August 2016

Extracted from his book *Alzheimer's Disease - How Its Bacterial Cause Was Found and Then Discarded* (CreateSpace, USA, 2016)

Every 72 seconds, someone in America develops Alzheimer's disease. It has been said that almost everyone living long enough will eventually show evidence of Alzheimer's disease. Thus far, its cause has remained elusive.

Nevertheless, recently, study after study in which scientists have injected human Alzheimer's-diseased brain tissue into mice and other laboratory animals that later developed the disease has left little doubt that Alzheimer's arises from an infectious process,^{1, 2, 3} the focus of debate seeming to be which particular disease.

But clearly, whatever the infectious cause behind Alzheimer's is, it must be a disease that is statistically widespread in the world today and that was also prevalent at the time of physician/psychiatrist Alois Alzheimer. To be sure, it was his great rival, German neuropathologist Oskar Fischer of the Prague school of neuropathology, who was the first to suggest that infection might be causative for Alzheimer's disease.

In 1901, when Alzheimer observed a 51-year-old woman named Auguste Deter at the Community Frankfurt Psychiatric Hospital in Frankfurt am Main, the three most striking things about her were her severe weight loss, her strange behavioural/psychiatric symptoms, and her loss of memory laced with confusion.

Deter was married and had a normal life until eight months prior to her confinement. Along with difficulties with memory and language, she showed paranoia, disorientation, auditory hallucinations and delusions.

At times, Deter was so delirious and her "they're-out-to-get-me" paranoia so severe that it bounced around from occasionally thinking someone was trying to kill her, to an unfounded jealousy of her husband, to loudly protesting that Alzheimer himself was trying to operate on her or at times molest her.⁴

This patient would become Alzheimer's obsession over the coming years. And when in April 1906 Frau Deter, aged 56, died, curled up in a foetal position in that same city asylum in Frankfurt (nicknamed "Irrenschloss", meaning "Castle of the Insane"), her chart seemed to contain an extensive psychiatric workup with little effort to rule out any possible infectious disease behind her early cachectic death.

Soon thereafter, Alzheimer had her records and her autopsied brain brought to Munich, where he was working at psychiatrist Emil Kraepelin's lab. Oddly, in his own writings, Alzheimer never identified himself first as the top-notch neuropathologist he was, but rather simply as a clinical psychiatrist responsible for patients. And the way in which he documented and diagnosed Deter's case in that chart was certainly how a clinical psychiatrist would go about doing things.

But in far-off Scotland, where he read about Deter, Thomas Clouston could not in any way agree with Alzheimer's thoughts or conclusions. To Clouston, Deter represented neither the "new disease" implied by Alzheimer's boss Kraepelin nor what Alzheimer referred to as "a peculiar, little-known disease process".^{4a}

Clouston, a contemporary of Alzheimer, would die in 1915—eight months to the day before Alzheimer's death. Clouston wasn't just a psychiatrist: he was superintendent of the prestigious Royal Edinburgh Asylum and President of the Royal College of Physicians of Edinburgh.

Both Alzheimer and Clouston would soon hold international reputations, each considered a pioneer in the treatment of mental illness. Yet for the life of him, Clouston thought the psychiatric history of the gaunt, suspicious, hallucinatory, paranoid-like Auguste Deter an open-and-shut case of what he often referred to in his lectures at Edinburgh University as "monomania of suspicion".

Clouston said this:

"This is a good example of those cases of pure monomania of suspicion, almost all of whom, according to my statistics, die of tuberculosis."⁵

As for the more demented cases such as Deter's, with her incapacitating memory loss, Clouston noted:

"This happens in about 30 per cent of cases. It is the event we most dread. It is the equivalent to a mental death."

So common was the knowledge at Alzheimer's time that tuberculosis (TB), in any form, whether inside or outside of the central nervous system, could lead to memory loss—some of it severe and progressive—that Clouston was just amazed at the exquisite lengths and efforts that Alzheimer and his boss, Kraepelin, went to in totally ignoring it. The fact that central nervous system tuberculosis could masquerade as age-related Alzheimer's dementia with severe memory loss was documented and still is to this day.⁶

Clouston maintained that since TB's psychiatric symptoms and dementia appeared long before the disease itself advanced to any great degree, many patients committed with TB were being sent to asylums instead of special hospitals for the treatment of the disease.



Some of the fortress-like tuberculosis sanatoriums that dotted Germany in Alzheimer's time.

Carpenter, in a 1903 review in *The Journal of the American Medical Association*, found Clouston's opinions not only justified but "a decisive etiologic [causative] factor"⁷ in any discussion of a subset of all asylum populations, including the one Auguste Deter now found herself in.

Forbes Winslow of Sussex House, Hammersmith, a former President of the Royal College of Psychiatry, had documented what neurotuberculosis could do to the mind in a clear and methodical way. Winslow presented cases⁸ of severe mental loss at the hands of neurotuberculosis.

Among them was a gentleman, aged 54, who worked as a principal in a fairly large school and who died of "softening of the brain", as his tubercular disease choked off vital blood supply to that portion of the brain. This man, who was Deter's age, had admitted at the time to his medical attendant that his mind was "gradually fading away from him", yet he carried on, occupying himself with his usual workday duties—until one day he could not. Winslow said this:

"Immediately retiring to his own private room, he seated himself in a chair, burst into a flood of tears, exclaiming, in wild despair, "My mind is gone! Altogether gone!" (ibid., p. 327)

In this case, no symptoms of physical (tubercular) disease of the brain were detected until 12 months before death. In another case, a retired army officer's mind appeared to gradually fade away and succumb to a mysterious influence.

Only after death did the reason become apparent. The dura mater of his brain was riddled with tuberculosis, his brain much shrunken and, in some portions, was in a softened state. In this instance, there were no delusions or other symptoms of mental abnormality until a year-and-a-half before death.

Forbes Winslow was citing these kinds of cases, Clouston knew, to point out that structural disease of the brain

from cerebral tuberculosis could occasionally be preceded by no other symptom than the loss of mental power and memory.

Clouston thought it odd, then, that in 1905, a year before Deter died, Paul Claisse and his colleague, P Abrami, presented a case to the Medical Society of the Hospitals of Paris⁹ with much the same symptomatology of Frau Deter, both psychiatrically and neurologically.

But in this case, a spinal tap was offered and performed, something which Deters family was never afforded the opportunity of choosing. The spinal fluid drawn from this patient showed lymphocytosis (an increase in those white blood cells called lymphocytes). And when it was injected into a guinea pig, that guinea pig abruptly expired—of tuberculosis. Despite this, Claisse and Abrami's patient went on to make a satisfactory recovery.

The Prevalence of Tuberculosis

In Alzheimer's time, there were two major and often deadly infectious diseases that filled 19th-century and early 20th-century psychiatric asylums: tuberculosis and syphilis. Deter did not have syphilis. Alzheimer documented that Deter did not even have the "suggestion of" neurosyphilis.¹⁷ But by measure of weight loss and Deters skeletal emaciation alone, she obviously did have a chronic wasting disease.

Although there are estimates in place that more than 25 per cent of chronic psychiatric patients in asylums circa 1900 had neurosyphilis, by 1905—one year before Alzheimer presented his findings on Deter's brain to the 37th Meeting of South-West German Psychiatrists at Tubingen—a German report¹⁰ surfaced saying otherwise.

It indicated that besides tubercular disease, the only two other truly statistically significant illnesses leading towards what could only be described as a 19th-century surge in psychiatric disease— neurosyphilis and alcoholism together—represented no more than a small statistical portion of asylum populations.

Their incidence was 11 per cent combined for the State of Prussia, the largest within unified Germany, where Alzheimer worked for Kraepelin. This study was done based on new admissions to German asylums. Therefore, the overwhelming rate of tubercular admissions cited could not be attributed to "unsanitary asylum conditions" or to "overcrowding" once inside an asylum.

Tellingly, Alzheimer's original presentation of Auguste Deter's pathology at the November 1906 conference in Tubingen, Germany, was disappointing. The meeting's chairman, Alfred Hoche, despised Alzheimer's employer, Kraepelin. Hoche had little use for Kraepelin's ever-changing psychiatric classifications.

Kraepelin, for his part, though absent from the meeting, had every intention of naming the disease that Alzheimer was presenting under what Hoche considered yet another unnecessary classification: Alzheimer's disease. If it were not for Hoche's animosity, Kraepelin would certainly have attended this meeting. And although chairman Hoche and his German colleagues listened respectfully to Alzheimer, remarkably there were no questions after Alzheimer's talk.

Seizing the opportunity, Hoche abruptly relieved Alzheimer of the podium. Other issues stirred much more interest and passion, such as whether Freud's concepts should be accepted. Alzheimer had opened his Deter presentation by saying this:

"Clinical observation alone made the case appear so unusual that it could not be classified as one of the recognized illnesses; it showed anatomical characteristics which set it apart from all recognized cases." ⁴

This wasn't entirely true. First, there was very little that set the anatomical characteristics of Alzheimer's findings apart from senile dementia. Second, by 1830, Louis-Nicolas Papavoine¹¹ had already described "plaques" in the brain, associated with systemic tuberculosis present either in or outside the brain. And as for the location where Papavoine noticed such plaques, they were in the brain's pia mater, the innermost of the three coverings of the brain called the meninges.

This was the very area in which neuropathologist Gaetano Perusini¹², who by 1910 was Alzheimer's go-to pathologist, showed alterations similar to Papavoine's pial changes in all four of his Alzheimer's autopsies.

In addition, approximately 10 years before Alzheimer wrote about Deter, Ludvig Hektoen, former editor of *The Journal of Infectious Diseases*, was already defining many of the same vascular changes in neurotuberculosis¹³ of the brain that Alzheimer and Perusini now documented as an integral part of their "new" disease.

In fact, at the very time that Alzheimer autopsied Deter's brain, German investigators^{14, 15, 16} were issuing voluminous literature defining a constellation of tubercular signs, symptoms and tissue findings, many of which Deter actually had. These included failure of memory, delirium, delusions, incoherence, incontinence, loss of the ability to use words, auditory hallucinations and hydrocephalus.

Yet Alzheimer persisted in his seeming ostrich-like approach, burying his head in the sand, insisting on Alzheimer's disease as "a peculiar disease process...verified recently in large numbers".⁴³ And this was a statement made at a

time when tuberculosis's annual kill rate was an incredible seven million persons per year— threatening the very existence of civilised Europe.

In response, Germany, with its back against the wall, facing a disease whose bacillus had been found but whose cure had not, began to churn out one TB sanatorium treatment centre after another. And so it was that as Alois Alzheimer pursued his clinical and laboratory duties, there was hardly a single large township or district in all of Germany that had not constructed its own open-air, hygienic-treatment tubercular sanatorium for its "consumptives".¹⁷

Alzheimer would continue to speak about the pathology he had found in Alzheimer's disease:

"Very remarkable and really without precedent in the pathological anatomy of the nervous system are the alterations of [brain neuron] axis-cylinders [the central core of the axon of, in this case, brain neurons], so exhaustively described by Fischer."¹⁸

But in reality, again, nothing was mentioned "without precedent". True, Oskar Fischer, Alzheimer's great European rival, was credited with establishing senile dementia, which he felt was part and parcel of Alzheimer's disease, and exhaustively worked on the alterations in axon cores in Alzheimer's.

Yet physician Thomas Barlow, in describing neurotuberculosis seven years prior to Alzheimer and Fischer's work, mentioned both Fischer's degenerative plaque alterations in the brain's neuronal axis-cylinders and Alzheimer's own observation with regard to the fibrillary degenerative tangles of cerebral ganglion cells under tubercular attack.¹⁸ Here is Barlow's explanation for such tuberculous "plaques and "tangles":

"Microscopic investigation throws some light upon this condition: the deposition of miliary tubercle in the subarachnoid, and along the ingrowing processes of pia mater, not only interferes with the vascular nutrition of the brain substance, but actually invades it, giving rise to extensive cellular infiltration, and causing degeneration of both axis-cylinders [of brain neurons] and ganglion cells. This seems to justify the modern designation of the disease as a true [tubercular] meningoencephalitis."¹⁹

Barlow, who knew that tubercular meningoencephalitis was looked on, then as now, as almost invariably fatal, felt the need for clarification:

"Finally, it is to be noted that the supervention of tuberculous meningitis on severe or extensive tuberculous disease elsewhere is sometimes quite latent, and not discovered till after death."¹⁹³

If statistically TB meningitis was being defined as the most common form of cerebral tuberculosis, it was simply because these were the cases that desperately sought medical attention and presented themselves at hospitals. But for a person to have meningitis, the disease had to break through to the spinal fluid, which in many cases never happened; if it did, often it did so much later in the disease process.

In the meantime, the spectrum of cerebral tuberculosis was much more extensive than TB meningitis, as witnessed by the not uncommon appearance of silent tubercles in the brain at autopsy. In the fifth edition of his *Pathologic Basis of Disease*²⁰, Robbins used the term *diffuse chronic meningoencephalitis* as the most common pattern of tubercular involvement of the brain.

He also acknowledged that its symptoms could vary greatly, ranging from simply chronic or intermittent headache with subtle mental changes to full-blown meningitis.

As early as 1911, German physician/investigator Otto Roepke, and Otto Ranke before him in 1908, emphasised that cerebral tuberculosis was not necessarily a death sentence and that often it was simply a matter of such small, multiple, bloodborne tubercles landing in a particular area in the brain, usually early in life.

Arnold Rich, head of pathology at Johns Hopkins, would confirm this decades later.²¹ In fact, to Rich, just if and where in the brain that bloodborne tuberculosis landed was tantamount to what card players call "the luck of the draw", with many brain tubercles, silent and quiescent, being picked up only by radiologic tests or at autopsy decades later.

Ranke's article¹⁶ is a careful report on the tissue pathology of neuro-tuberculosis, which should have been of interest to anyone pursuing the cause of Alzheimer's disease. Many of Ranke's drawings in this paper, created with the *camera lucida* of that era, showed a decimation of cerebral nervous tissue similar to those drawn by Perusini and Alzheimer themselves.

Ranke saw as the body's defenders against tubercular infection not only blood macrophages (a type of scavenger white blood cell) of varying morphology in pial blood vessels in the brain, but galvanised glial forms in the brain's parenchyma. The glia or microglia have long been called the macrophages of the brain, which, along with blood macrophages, attempt to stamp out and remove debris from, among other things, cerebral infection.

However, in the case of an acute, virulent, tubercular meningeal assault, such an attempt was rarely successful. What Ranke noticed instead was a markedly violent infection that seeped further into brain matter, leaving severely injured, shrivelled, darkly stained pyknotic neurons and ganglion cells in its inflammatory path.

Ranke also detected nerve and ganglion cell die-off under tubercular assault. Such neuronal death would soon be replaced by the same stop-gap, clustered, proliferating glial forms, with the same occasional rod-shaped cells, mentioned by some in Alzheimer's group.

It is improbable that Alois Alzheimer did not read Ranke's article and absorb the parallels between Ranke's work on central nervous system tuberculosis and his own histological findings on Auguste Deters brain. In 1904, Alzheimer and his lifetime friend, Franz Nissl, began to jointly edit the journal *Histologische und histopathologische Arbeiten über die Grosshirnrinde* ("Histological and Histopathological Work on the Cerebral Cortex")—a publication that accepted Ranke's TB meningitis review and published it in 1908.

Ranke's paper also cited the experimental work of Kure Shuzo, who, while working in Nissl's laboratory in 1898, produced experimental tuberculous meningoencephalitis by drawing cotton threads impregnated with tubercle bacilli through the brains of dogs.

Despite such knowledge of a possible linkage between cerebral tuberculosis and Alzheimer's disease—an association implied not only by Alzheimer's German and European colleagues but subsequently by Elmer Southard at Harvard and Clouston at Edinburgh—and despite the seven million deaths per year from a tubercular disease that led to TB sanatoria sprouting up like weeds all around him, Alzheimer's silence was singular.

Alzheimer doubled down on his carefully manicured hypothesis, repeatedly beseeching neurologists and psychiatrists alike not to look towards a "well-known disease" as being behind this "new disease". After all, it had to be a "new" disease because Alzheimer's chief, Emil Kraepelin, demanded that it be new.

About the Author:

Pennsylvania internist and medical researcher Lawrence Broxmeyer, MD, was on the staff at New York affiliates of Downstate, Cornell and NYU for 14 years. He was the originator and lead author of a novel way to kill AIDS mycobacteria (*J. Infectious Diseases* 2002; 186[8]:1155-60). His ideas on phagotherapy are still in use today. He contributed a chapter to the textbook *Patho-Biotechnology* (Landes Bioscience, 2008). His peer-reviewed articles are available on PubMed. His most recent article in NEXUS is "Vaccines as an Autism Trigger: A TB Link?" (22/02).

Dr Broxmeyer can be contacted by email at:
drlawrencebroxmeyerm@alumni.usc.edu

For more information, visit:
<http://lawrencebroxmeyerm.weebly.com>

Editor's Note:

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Primary Perception and Biocommunication

Polygraph specialist Cleve Backster discovered that all lifeforms, whether plants, bacteria or human cells, exhibit an intrinsic perception of their environment and respond to it. This finding calls for a redefinition of consciousness and holds promise for the future of interspecies communication.

A Cleve Backster interview
by Derrick Jensen

© 2016

Extracted and edited from chapter 3 of his book *The Myth of Human Supremacy* (Seven Stories Press, 2016)

Opening the Door to Communicating with Other Lifeforms

Almost 20 years ago I interviewed Cleve Backster (1924-2013) about plant intelligence. No, he wasn't a botanist. He was one of the world's experts on the use of polygraphs, or lie detectors.

I know that sounds like an odd connection, but listen to his story and the connection will become clear. Just after World War II he was a CIA interrogation specialist and founded the Agency's polygraph school. In 1960 he left the CIA and formed the Backster School of Lie Detection, to instruct police officers. This school is the longest-running polygraph school in existence.

Backster could name the moment the focus of his life changed forever, from lie detection to plant intelligence: early in the morning on 2 February 1966, at 13 minutes, 55 seconds of chart time for a polygraph he was administering. He had threatened the subject's wellbeing in the hope of triggering a response. The subject had responded electrochemically to this threat. The subject was a plant. Here's his story.

"I wasn't particularly into plants, but there was a going-out-of-business sale at a florist on the ground floor of the building, and the secretary bought a couple of plants for the office: a rubber plant, and this dracaena cane. I had done a saturation watering—putting them under the faucet until water ran out the bottom of the pots—and was curious to see how long it would take the moisture to get to the top.

"I was especially interested in the dracaena, because the water had to climb a long trunk, and then to the end of long leaves. I thought if I put the galvanic-skin-response detector of the polygraph at the end of a leaf, a drop in resistance would be recorded on the paper as the moisture arrived between the electrodes. I noticed something on the chart resembling a human response on a polygraph: not at all what I would have expected from water entering a leaf.

"Lie detectors work on the principle that when people perceive a threat to their wellbeing, they physiologically respond in predictable ways. If you were conducting a polygraph as part of a murder investigation, you might ask a suspect, 'Was it you who fired the shot fatal to so and so?' If the true answer were 'Yes', the suspect would fear getting caught lying, and electrodes on his or her skin would pick up the physiological response to that fear.

"So I began to think of ways to threaten the wellbeing of the plant. First I tried dipping a neighbouring leaf in a cup of warm coffee. The plant, if anything, showed what I now recognise as boredom—the line on the chart just kept trending downward. Then at 13 minutes, 55 seconds chart time, the imagery entered my mind of burning the leaf. I didn't verbalise; I didn't touch the plant; I didn't touch the equipment. Yet the plant went wild. The pen jumped right off the top of the chart. The only new thing the plant could have reacted to was the mental image.

"I went into the next office to get matches from my secretary's desk, and, lighting one, made a few feeble passes at a neighbouring leaf. I realised, though, that I was already seeing such an extreme reaction that any increase wouldn't be noticeable. So I tried a different approach: I removed the threat by returning the matches to the secretary's desk. The plant calmed right back down.

"Immediately I understood something important was going on. I could think of no conventional scientific explanation. There was no one else in the lab suite, and I wasn't doing anything that might have provided a mechanistic trigger. From that split second my consciousness hasn't been the same. My whole life has been devoted to looking into this."

Primary Perception of All Life

Cleve called what the plant was doing primary perception. He found that not only plants are capable of this.

"I've been amazed at the perception capability right down to the bacterial level.

"One sample of yogurt, for example, will pick up when another is being fed. Sort of like, 'That one's getting food. Where's mine?' That happens with a fair degree of repeatability. Or if you take two samples of yogurt, hook one up to electrodes and drop antibiotics in the other, the electroded yogurt shows a huge response at the other's death. And they needn't even be the same kind of bacteria.

"The first Siamese cat I ever had would only eat chicken. I'd keep a cooked bird in the lab refrigerator and pull off a piece each day to feed the cat. By the time I'd get to the end, the carcass would be pretty old and bacteria would have started to grow. One day I had some yogurt hooked up, and as I got the chicken out of the refrigerator to begin pulling off strips of meat, the yogurt responded. Next, I put the chicken under a heat lamp to bring it to room temperature, and heat hitting the bacteria created more huge reactions in the yogurt."

I asked how he knew he wasn't influencing it.

"I was unaware of the reaction at the time. I had pip switches all over the lab, and whenever I performed an action I hit a switch, which placed a mark on a remote chart. Only later did I compare the reaction of the yogurt to what had been happening in the lab."

Did the yogurt respond again when the cat started to eat?

"Interestingly enough, bacteria appear to have a defence mechanism such that extreme danger causes them to go into a state similar to shock. In effect, they pass out. Many plants do this as well. If you hassle them enough, they flatline. The bacteria apparently did this, because as soon as they hit the cat's digestive system the signal went out. There was a flatline from then on.

Cleve continued:

"I was on an airplane once, and had with me a little battery-powered galvanic response meter. Just as the attendants started serving lunch, I pulled out the meter and said to the guy next to me, 'You want to see something interesting?' I put a piece of lettuce between the electrodes, and when people started to eat their salads we got some reactivity, which stopped as the leaves went into shock. 'Wait until they pick up the trays,' I said, 'and see what happens.' When attendants removed our meals, the lettuce got back its reactivity. I had the aisle seat, and I can still remember him strapped in next to the window—no way to escape this mad scientist attaching an electronic gadget to lettuce leaves.

"The point is that the lettuce was going into a protective state so it wouldn't suffer. When the danger left, the reactivity came back.

"This ceasing of electrical energy at the cellular level ties in, I believe, to the state of shock that people, too, enter in extreme trauma."

Plants, bacteria, lettuce leaves.

"Eggs. I had a Doberman Pinscher back in New York whom I used to feed an egg a day. One day I had a plant hooked up to a large galvanic response meter, and as I cracked the egg the meter went crazy. That started hundreds of hours of monitoring eggs. Fertilised or unfertilised, it doesn't matter; it's still a living cell, and plants perceive when that continuity is broken. Eggs, too, have the same defence mechanism. If you threaten them, their tracing goes flat. If you wait about 20 minutes, they come back.

"After working with plants, bacteria and eggs, I started to wonder how animals would react. But I couldn't get a cat or dog to sit still long enough to do meaningful monitoring. So I thought I'd try human sperm cells, which are capable of staying alive outside the body for long periods of time, and are certainly easy enough to obtain. I got a sample from a donor and put it in a test tube with electrodes, then separated the donor from the sperm by several rooms. The donor inhaled amyl nitrite, which dilates blood vessels and is conventionally used to stop a stroke. Just crushing the amyl nitrite caused a big reaction in the sperm—and when the donor inhaled, the sperm went wild.

"So here I am, seeing single-cell organisms on a human level—sperm—that are responding to the donor's sensations, even when they are no longer in the same room as the donor. There was no way, though, that I could continue that research. It would have been scientifically proper, but politically stupid. The dedicated sceptics would undoubtedly have ridiculed me, asking where my masturbatorium was, and so on.

"Then I met a dental researcher who had perfected a method of gathering white cells from the mouth. This was politically feasible, easy to do, and required no medical supervision. I started doing split-screen videotaping of experiments, with the chart readout superimposed at the bottom of the screen showing the donors' activities.

"We took the white cell samples, then sent the people home to watch a preselected television program likely to elicit an emotional response—for example, showing a veteran of Pearl Harbor a documentary on Japanese air attacks. We found that cells outside the body still react to the emotions you feel, even though you may be miles away.

"The greatest distance we've tested has been about 300 miles.

Astronaut Brian O'Leary, who wrote *Exploring Inner and Outer Space*, left his white cells here in San Diego, then flew home to Phoenix. On the way, he kept track of events that aggravated him, carefully logging the time of each. The correlation remained, even over that distance."

The implications of all this...

Cleve interrupted, laughing.

He said:

"...Yes, are staggering. I have file drawers full of high-quality anecdotal data showing time and again how bacteria, plants and so on are all fantastically in tune with each other. And human cells, too, have this primary perception capability, but somehow it's gotten lost at the conscious level."

Reaction from the Scientific Community

I asked Cleve how the scientific community has received his work.

"With the exception of scientists at the margins, like Rupert Sheldrake, it was met first with derision, then hostility, and mostly now with silence.

"At first they called primary perception 'the Backster effect', perhaps hoping they could trivialise the observations by naming them after this wild man who claimed to see things missed by mainstream science. The name stuck—but because primary perception can't be readily dismissed, it is no longer a term of contempt."

I then asked him what is the primary criticism by mainstream scientists.

"The big problem—and this is a problem as far as consciousness research in general is concerned—is repeatability. The events I've observed have all been spontaneous. They have to be. If you plan them out in advance, you've already changed them. It all boils down to this: repeatability and spontaneity do not go together, and as long as members of the scientific community overemphasise repeatability in scientific methodology they're not going to get very far in consciousness research.

"Not only is spontaneity important, but so is intent. You can't pretend. If you say you are going to burn a plant but don't mean it, nothing will happen. I hear constantly from people in different parts of the country, wanting to know how to cause plant reactions. I tell them, Don't do anything special. Go about your work; keep notes so later you can tell what you were doing at specific times, and then compare them to your chart recording. But don't plan anything or the experiment won't work.

"People who do this often get equivalent responses to mine, and often win first prize in science fairs. But when they get to Biology 101, they're told that what they have experienced is not important.

"There have been a few attempts by scientists to replicate my experiments...but these have all been methodologically inadequate. It is so very easy to fail. And let's be honest: some of the scientists were relieved when they failed, because success would have gone against the body of scientific knowledge."

I said that for scientists to give up predictability means they have to give up control, which means they have to give up Western culture, which means it's not going to happen until civilisation collapses under the weight of its own ecological excesses.

Cleve nodded, then said:

"I have given up trying to fight other scientists on this because I know that, even if the experiment fails, they still see things that change their consciousness. People who would not have said anything 20 years ago often say to me, 'I think I can safely tell you now how you really changed my life with what you were doing back in the early '70s.' These scientists didn't feel they had the luxury back then to rock the boat; their credibility, and thus their grant requests, would have been affected."

Possible Explanations

I asked if there are alternative explanations for the polygraph readings. I'd read that one person suggested his machine must have had a loose wire.

Cleve responded:

"In 31 years of research I've found all my loose wires. No, I can't see any mechanistic solution. Some parapsychologists believe I've mastered the art of psychokinesis—that I move the pen with my mind, which would

be a pretty good trick itself. But they overlook the fact that I've automated and randomised many of the experiments to where I'm not even aware of what's going on until later, when I study the resulting charts and videotapes. The conventional explanations have worn pretty thin.

"One such explanation, proposed in *Harper's*, was static electricity: if you scuffle across the room and touch the plant, you get a response. But of course I seldom touch the plant during periods of observation, and in any case the response would be totally different."

So, what is the signal picked up by the plant?

"I don't know. I don't believe the signal, whatever it is, dissipates over distance, which is what we'd get if we were dealing with an electromagnetic phenomenon. I used to hook up a plant, then take a walk with a randomised timer in my pocket.

"When the timer went off, I'd return home. The plant always responded the moment I turned around, no matter the distance. And the signal from Phoenix was just as strong as if Brian O'Leary were in the next room.

"Also, we've attempted to screen the signal using lead-lined containers and other materials, but we can't screen it out. This makes me think the signal doesn't actually go from here to there, but instead manifests itself in different places. All this, of course, lands us firmly in the territory of the metaphysical, the spiritual."

Redefining Consciousness

I said that primary perception suggests a radical redefinition of consciousness.

"You mean it would do away with the notion of consciousness as something on which humans have a monopoly?"

He hesitated a moment, then continued:

"Western science exaggerates the role of the brain in consciousness. Whole books have been written on the consciousness of the atom. Consciousness might exist on an entirely different level."

I asked Cleve whether he had worked with materials that would normally be considered inanimate.

"I've shredded some things and suspended them in agar. I get electric signals, but not necessarily relating to anything going on in the environment. It's too crude an electroding pattern for me to decipher. But I do suspect that consciousness goes much, much further.

"In 1987 I participated in a University of Missouri program that included a talk by Dr Sidney Fox, then connected with the Institute for Molecular and Cellular Evolution at the University of Miami. Fox had recorded electric signals from protein-like material that showed properties strikingly similar to those of living cells. The simplicity of the material he used and the self-organising capability it displayed suggest to me that biocommunication was present at the earliest states in the evolution of life on this planet.

"Of course the Gaia hypothesis—the idea that the Earth is a great big working organism with a lot of corrections built in—fits in nicely with this. I don't think it would be a stretch to take the hypothesis further and presume that the planet itself is intelligent."

I asked Cleve how his work has been received in other parts of the world.

"The Russians and other Eastern Europeans have always been very interested. And whenever I encounter Indian scientists—Buddhist or Hindu—and we talk about what I do, instead of giving me a bunch of grief they say, 'What took you so long?' My work dovetails very well with many of the concepts embraced by Hinduism and Buddhism."

Fundamental Attunement

What is taking us so long?

"The fear is that, if what I am observing is accurate, many of the theories on which we've built our lives need complete reworking. I've known biologists to say, 'If Backster is right, we're in trouble'. It takes a certain kind of character and personality to even attempt such a questioning of fundamental assumptions.

"The Western scientific community and actually all of us are in a difficult spot because in order to maintain our current mode of being, we must ignore a tremendous amount of information. And more information is being gathered all the time.

"For instance, have you heard of Rupert Sheldrake's work with dogs? He put a time-recording camera on both the dog at home and the human companion at work. He has discovered that even if people come home from work at a different time each day, at the moment the person leaves work, the dog at home heads for the door.

"Even mainstream scientists are stumbling all over this biocommunication phenomenon. It seems impossible, given the sophistication of modern instrumentation, for us to keep missing this fundamental attunement of living things. Only for so long are we going to be able to pretend it's the result of 'loose wires'. We cannot forever deny that which is so clearly there."

About the Author:

Hailed as the philosopher-poet of the environmental movement, Derrick Jensen is the award-winning author of 20 books including *The Myth of Human Supremacy*, *Endgame* and *A Language Older Than Words*. He holds a degree in creative writing from Eastern Washington University and a BSc degree in mineral engineering physics from the Colorado School of Mines, and has taught at Eastern Washington University and Pelican Bay State Prison. He has packed university auditoriums, conferences and bookstores across the USA, stirring his audiences with revolutionary spirit.

Derrick Jensen can be contacted by email at:
derrick@derrickjensen.org

For more information, visit his website:
www.derrickjensen.org.

Editor's Note:

This article is extracted and edited with permission from chapter 3 of Derrick Jensen's book *The Myth of Human Supremacy* (Seven Stories Press, New York, USA, 2016, www.sevenstories.com; to be reviewed in NEXUS 24/01). A previous version of Derrick Jensen's interview with Cleve Backster was published in NEXUS 11/05, along with a review of Backster's book *Primary Perception*.

432 Hz: Towards a New Standard Concert Pitch

The current concert pitch of 440 Hz for the tuning of musical instruments has been arbitrarily determined and has no scientific basis. There is a growing movement to change the regulated pitch to 432 Hz. This would be in accord with the Bel Canto tradition as well as with scientific and esoteric insights.

by **Simone Vitale**

© August 2016

Email: info@soundofgoldenlight.com

Website: www.soundofgoldenlight.com

My Experience with a Change in Tuning

Over the last 10 years, an increasingly widespread discussion on the topic of the 432 hertz (Hz) concert pitch has given birth to a variety of experiments, research projects and all sorts of conjectural considerations.

If you search "432 Hz" on the Internet today, you will see a massive number of links, far more than I was able to find when I first became interested in the topic some 12 years ago. You'll find that some of the pages provide a well-thought-out, well-researched presentation, while others are inconsistent and approximate.

Many articles and blog posts that oversimplify this topic often include half-baked statements such as "432 Hz is the frequency of life" or "It resonates with the Earth" or "Music tuned to 440 Hz is bad for you" and the like.

One of the reasons why this topic is subject to so much shallow information is that, in the attempt to seek a deep understanding, one is confronted with research that branches off in many directions, which is obviously time-consuming.

I am not presenting a solution here; nor am I attempting to provide a definitive answer to the many questions. My intention is to share my experience in combination with the most relevant information among all that I've been able to examine so far.

The first time I came across the suggestion that 432 Hz could be a better standard pitch than 440 Hz was in 2004 when I was reading Patrick Bernard's book *The Secret Music of the Soul*¹.

Somehow this information resonated very deeply within me, and one morning I decided to lower the tuning of my classical guitar and try this new pitch. I had an immediate feeling that there was something there, something that I needed to experiment with and understand better because somehow it felt significant, almost poignant.

At that time I was spending most of my days in the midst of nature, in retreat from the chaos of the big city (Rome) and focusing mainly on deep relaxation and regeneration of my nervous system, so I was very sensitive and open. I believe that this is the reason why I was able to appreciate the effect of such a small change in the tuning of my instrument.

Three Basic Elements

In order for the numbers in this article to make sense, you need a basic understanding of three concepts:

1. Hertz (named in honour of German physicist Dr Heinrich Rudolf Hertz), abbreviated as "Hz". Simply put, "Hz" means nothing more than "times per second" and it is the measuring unit of vibration. The number of Hz indicates how many times in one second the full cycle of a certain vibration occurs: 1 Hz means once per second, 432 Hz means 432 times per second, and so on.

2. Standard pitch (or reference pitch) for the intonation of musical instruments. In order to make it possible for many musicians to play together, a reference pitch or standard needs to be set. Currently, the international standard pitch (proposed in 1939 and 1955 and finally adopted internationally in 1978) is A = 440 Hz, where A or la (the Latin name for the same note) is the sixth note above middle C or do on a piano. It has been decided that this note has to vibrate 440 times per second. All the other notes of the scale will then be tuned accordingly.

3. Tonal systems. A tonal system is a framework made of a series of tones arranged in specific ratios. In order to make music, we organise the notes of the musical scale in such a way as to create specific *intervals* (combinations of two notes) from which we proceed to create *chords* (combinations of three or more notes) by which we express and experience *harmony*.

There are several different tonal systems and the one we are more familiar with in Western culture is the 12-tone

equal temperament, which sets a musical scale of 12 notes. The distance between any one of these notes, from the next or the previous note, is constant.

Bel Canto and 432 Hz

On 9 April 1988 in Milan, Italy, The Schiller Institute held a conference on the topic of changing the standard pitch from 440 Hz to 432 Hz. It is a pivotal topic in the world of opera singers.

The famous soprano Renata Tebaldi and baritone Piero Cappuccilli were present as speakers, and big names like Montserrat Caballé, Anneliese Rothenberger, Plácido Domingo, Alfredo Kraus and others, unable to attend, sent their messages of support. Luciano Pavarotti was also known to support this cause.

The key point presented at the conference is this: in the traditional *bel canto* technique, passed on through the centuries from the Italian masters, there is a specific shift in the register of the voices of tenors and sopranos. This naturally occurs on the F-sharp (F#) when instruments are tuned to A = 432 Hz. When instruments are tuned to 440 Hz or higher, the shift occurs around the note F or lower.



The Schiller Institute maintains that the operas of the great composers of the past were composed in a lower pitch. The changes in voice registers were used to accentuate the meaning of the lyrics, and therefore these shifts had to occur on the right notes.

Bel canto has evolved, been perfected and passed on for centuries by the Italian masters of the voice and is the result of a close observation of the natural voice and its dynamics. Therefore, it is important to adopt the reference pitch that most helps to preserve the natural registers of the voice. After all, the human voice is the basis of human music. Musical instruments came later and their technical issues and specifications should not be allowed to have priority over the natural needs of the singing voice.

Verdi's 432-Hz Pitch

A famous letter written in 1884 by the great Italian *maestro* Giuseppe Verdi to the Italian government is often quoted in support of the 432 Hz movement. In his letter, Verdi expressed his concern about the raising and fluctuations of pitch (which at that time had not yet been standardised).

He asked for and obtained a regulation of the pitch at 432 Hz. His main arguments were to do with the difficulties of opera singers and the risks that ancient instruments underwent when tuned to a higher pitch than the one they had been built for.

In his letter, Verdi asked the Italian government to conform to the French standard of that time, which was 435 Hz. He then added that if the Italian commission believed that for mathematical reasons the reference pitch should be lowered to 432 Hz, he would absolutely agree with that.

It is interesting to note that 432 Hz is related to mathematical values. Unfortunately, in Verdi's letter there is no mention of the reasons why this frequency would be preferred "for mathematical reasons". It is likely, though, that 432 Hz would be preferred for ease of calculation of all the other relative frequencies.

Another important aspect is that A = 432 Hz can be understood as the upper limit of the tuning based on C = 256 Hz. Now, this might seem a bit confusing, but the 432 Hz issue cannot really be separated from the notion of "scientific tuning" which corresponds to middle C on the piano keyboard (the C note just below the A = 432 Hz note), tuned to 256 Hz. We'll get to this later.

The name of Verdi has recently been taken up as a sort of banner for demanding a new standard pitch of 432 Hz on the basis of his letter, mentioned above, and the resulting decree by the Italian War Ministry, which in 1884 institutionalised the A at 432 Hz throughout Italy. Unfortunately, this did not last very long. The following year, at a conference held in Vienna and mainly run by the British government, this standard was refused and as a result was also abandoned in Italy.

Pythagoras and 432 Hz

A very peculiar association that I've encountered more than once is with the name of Pythagoras. I was quite surprised to find the note A = 432 Hz addressed as *Pythagorean tuning*.

Pythagoras is beyond the scope of this article, and discussing Pythagorean tuning would lead us too far astray. However, I would like to point out that none of the historical sources available on this semi-mythical character makes any mention of frequencies of vibration, simply because at that time the assignment of a numerical value representing a periodic frequency had not yet been introduced (as far as we know). Furthermore, all the texts available were written after the lifetime of Pythagoras. We do not possess any written material by Pythagoras himself.

The Pythagorean tuning system is based on a cycle of *pure fifths* (the 3:2 ratio found in the harmonic series). This tuning is not the one commonly in use today, and one of the reasons why is because a full cycle of 12 fifths should coincide with seven octaves but it actually does not. The difference between the note we land on after stacking 12 fifths and the one we land on after seven octaves is known as the *Pythagorean comma* (the ratio of 531441:524288).

The Scientific Pitch

Let's go back to the "mathematical reasons" that Giuseppe Verdi mentioned in his letter. When I read that line the first time, I suddenly remembered that many years previously I'd read that for some reason the note C = 256 Hz seems to be considered a "scientific tuning". Textbooks on physics, acoustics, sound and music usually take this frequency as a given and do not provide an introductory explanation for this particular choice.

In his article "The Curious Concert Pitch Conflict"², John Stuart Reid reported that the scientific pitch was set at C = 256 Hz in 1713 by French mathematician and physicist Joseph Sauveur. Sauveur originally proposed this as a standard concert pitch due to the fact that all of its eight musical octaves³ result in whole numbers: 32, 64, 128, 256, 512, 1024, 2048 and 4096. This was not accepted by the music world but instead was adopted by the medical community and became known as scientific pitch.

I return briefly to Pythagorean tuning. The only way I know to relate 432 Hz to Pythagorean tuning is to obtain this note from a cycle of pure fifths starting from C = 256 Hz. Remember that Pythagorean tuning is based on a cycle of perfect fifths, and that a perfect musical fifth is defined by the ratio 3:2. Thus:

$$256 \times 3 / 2 = 384 \text{ (the note G)}$$

$$384 \times 3 / 2 = 576 \text{ (the note D)}$$

$$576 \times 3 / 2 = 864 \text{ (the note A, one octave higher than A = 432 Hz).}$$

In The Schiller Institute's book *A Manual on the Rudiments of Tuning and Registration*⁴ there is a very interesting chapter on the foundations of scientific tuning. The core idea of this publication is that the correct way to approach tuning is to relate it to the physiology of the voice, as it's been done throughout history. *Voice registration* is the arrangement of the various types of voices according to their range (e.g., soprano, mezzosoprano, tenor, bass).

In the Institute's book it is maintained that the scientific pitch is set in such a way as to allow the trained voices of opera singers to shift registers at very specific frequencies. The exact half of an octave ranging from one C to the next C is F#. When C is tuned to 256 Hz, the shift of the soprano voice occurs at exactly F#.

According to the authors, this is the reference point of voice registration in the *bel canto* tradition. The classical composers wrote their operas to be performed with this exact registration, and in the book the reader can find an accurate analysis of the lyrics of many operas to support this idea.

A more daring chapter in the same book suggests parallels between voice registers and astronomical ratios in the solar system:

"F# is located as the geometrical mean of C 256 Hz and its octave, C 512 Hz.

"In physical terms, the register shift constitutes a singularity, a nonlinear phase change comparable to the transformation from ice to water or water to steam.

"Our Solar System also makes a 'register shift'. It has long been noted that the inner planets (Mercury, Venus, Earth and Mars) all share such common features as relatively small size, solid silico-metallic surface, few moons and no rings. The outer planets (Jupiter, Saturn, Uranus and Neptune) share a second, contrasting set of characteristics: large size, gaseous composition, many moons and rings.

"The dividing point between these two sharply contrasting 'registers' is the asteroid belt, a ring-like system of tens of thousands of fragmentary bodies believed to have arisen from an exploded planet.

"The Solar System register shift falls exactly in the same geometric mean position as the shift of the soprano voice in the proper C 256 Hz tuning."⁵

An article in the March-April 1989 issue of *21st Century Science & Technology* was introduced with this dramatic statement:

"A student of living processes reports on new discoveries in the harmonic 'tuning' of the biological domain, with DNA as the tuning fork, precisely 42 octaves above middle C."⁶

According to The Schiller Institute's book, this article reported a study in the field of optical biophysics, revealing the following:

"Living tissue emits and absorbs electromagnetic radiation at a series of specific frequencies or wavelengths. It turns out that the most important of these frequencies can be arranged in an ordering very similar to the musical scale, but 42 octaves higher.

"This [DNA absorption] band corresponds to wavelengths between 263 and 269 nanometers (a nanometer is one-billionth of a meter). The center frequency of this band (corresponding to 265 nm) is 1.1283×10^{15} cycles per second, which is exactly 42 octaves above the frequency 256.54 cycles per second."⁷

Anthroposophy and Cosmic Tuning

Founded by Rudolf Steiner in the early 20th century, Anthroposophy is a spiritual philosophy that promotes knowledge of the existence of an objective spiritual reality that can be experienced directly through personal inner development. Initially rooted in the Theosophical Society, Steiner's vision moved away from the Indian-based teachings of the Theosophists to form a more Western, Christianity-based, spiritual science.

Rudolf Steiner was a unique character who cannot be described easily in a few words. A philosopher, clairvoyant and esoteric teacher, Steiner was a prolific author on an impressive variety of topics. There are a few reported instances in which Steiner gave insights that are relevant for the topic of this article.

In Maria Renold's book *Intervals, Scales, Tones and the Concert Pitch C = 128 Hz*⁸, I read that Steiner was once asked about what is the correct pitch for our present time; he answered that "C = 128 Hz = Sun" is the correct pitch for modern human minds and spirits. C = 128 Hz is an octave lower than C = 256 Hz.

Steiner is also said to have stated that the inner ear of the human being is built on C = 128 Hz. This frequency, according to Steiner, "not only relates to the planet Mars and its metal iron but also to meteoric iron as Sun substance in the cosmos, to [Archangel] Michael as the spirit of the age, to human blood and human freedom".⁹

Now that I have mentioned Maria Renold, a German-American violinist and violist who followed Steiner's ideas, it is time to close the circle and connect the two reference frequencies that I have been mentioning here: 256 Hz (or its lower octave, 128 Hz) and 432 Hz.

When she first heard of Steiner's indication of C = 128 Hz, Renold decided to test it practically. She was also concerned with understanding thoroughly the problems of tuning and intonation. As a classical musician, she was aware that the equally tempered scale is a compromise with significant losses in terms of purity of harmony.

Renold came up with a tuning system that she named the *scale of twelve fifths*, which provides a way of tuning a piano with more acceptable compromises than those of equal temperament.¹⁰ Using this system it is possible to have C = 256 Hz and A = 432 Hz in the scale, whereas this is not possible with equal temperament.

Renold conducted many experiments, testing the different responses of listeners to her tuning system both in 440 Hz standard pitch and 432 Hz pitch.

"Maria Renold found that of 2000 people tested over 20 years, over 90% consistently preferred the lower pitch. The notes were given in different order, on different instruments, with various means to avoid prejudicing the listener. The wide variety of comments all went in the similar direction of calling the higher pitch more 'irritating, unpleasant, aggressive, making one stressful and nervous'. The lower one, on the other hand, sounded 'right, complete, pleasant, radiant, peaceful, harmonious, heartfelt but leaving one free'."¹¹

A Special Number

It is a matter of fact that the number 432 is a special one. Indeed, it can be found encoded in the knowledge of very ancient civilisations. It would be a mistake to believe that in ancient times the choice of numbers happened randomly. There is abundant evidence that very ancient inhabitants of the Earth possessed a surprisingly advanced astronomical knowledge concerning the Earth, the solar system and even distant stars.

For example, Hindu cosmology divides the cycles of time into four Yugas or "world ages", the shortest of which, the current Kali Yuga, is 432,000 years. Then we have the Dvapara Yuga of 864,000 ($432,000 \times 2$) years; the Treta Yuga of 1,296,000 ($432,000 \times 3$) years; and finally the Krita Yuga of 1,728,000 ($432,000 \times 4$) years.

The total sum is 4,320,000 years, comprising the Maha Yuga. In the Rig Veda, one of the sacred books of Hinduism, there are 432,000 syllables. "[The number] 432,000 was also the number of years in the ancient Babylonian 'Great Year'.

For the authors of the *Grímnismál*, 432,000 was the number of fallen warriors whom the Valkyries carried to Valhalla. For Ptolemy, 432,000 was the least common denominator for his monochord fractions."¹²

The ninth-century Borobudur Mahayana Buddhist temple in Indonesia has 432 statues of the Buddha on one level and 72 more on an upper level; 432 is a multiple of 72 (six octaves higher).

The diameter of the Sun is close to 864,000 ($432,000 \times 2$) miles; the diameter of the Moon is close to 2,160 ($432,000 / 200$) miles. The Sun and the Moon appear to be the same size from the Earth, which is why we can appreciate a total solar eclipse.

If expressed in metres, or any measure other than inches and miles, these numbers would not make much sense—but the inch seems to be a unit of measure that is closely related to astronomical, geophysical and mathematical proportions.

Sir Isaac Newton allegedly discovered what is called the *pyramid inch*.¹³ While he was studying the Great Pyramid of Giza, he realised that the use of this particular unit would turn many of the pyramid's measurements into whole numbers.

If we multiply the height of the Great Pyramid, 481 feet, by 43,200,000, we get 20,779,200,000 feet, very close to the Earth's polar radius measurement of 20,855,485,564 feet. If we multiply the perimeter of the base of the Great Pyramid, 3,024 feet, by 43,200, we get 130,636,800 feet, very close to the Earth's equatorial circumference measurement of 131,479,659 feet.

Apparently the English inch was originally the same as the pyramid inch, but nowadays there is a slight difference, the Pyramid inch measuring approximately 1.0011 current inches. This has probably happened in recent times with the progressive creation of standards by the International Organization for Standardization (ISO), the same organisation that registered the standard concert pitch.

The speed of light, if calculated with the slightly longer pyramid inch, is extraordinarily close to 432 squared. The official speed of light, 186,291 miles per second, multiplied by 1.0011 equals 186,496 (99.931429 per cent of 186,624, or 432 squared).

Now, back to 432 Hz. When we speak about frequencies we speak about hertz, cycles per second. When I first became interested in this subject, a legitimate doubt came into my mind: all these apparently significant frequencies only seem so special because we measure them in seconds, but is a second not an arbitrary unit? If seconds were different from what they are, then all the frequency numbers would be different and all this information would have no value.

Later on, I found out that a second is defined as 1/86,400th of a solar day. I was pleased to find that the second is not such an arbitrary choice after all, but has an astronomical basis. A full rotation of the Earth (24 hours) contains 864,000 ($432,000 \times 2$) seconds.

If we multiply 432 by 60 (the number of seconds in a minute), we get 25,920, which is the number of years of a complete cycle of the precession of the equinoxes (one complete rotation of the Earth's axis).

If we divide 432 by 60, we get 7.2 ($72 / 10$). I wonder whether 7.2 could possibly have been the basic frequency of the Schumann resonance of the Earth in ancient times when these units were created. That would be quite an interesting discovery!

It is important to note that all these corresponding numbers are approximate. In articles about 432 Hz, I often find these numbers given as perfect matches. Personally, I do not agree with stating that when something is so close then it is practically the same.

However, I do find all this remarkable.

The reasons why these numbers don't match completely could be many.

One could be that the ancient peoples, despite their astounding understanding and knowledge, may not have been able to calculate everything exactly. They were obviously trying to point out certain numbers, and they succeeded in that as much as they could.

Another reason could be that we are missing something in the way that we interpret their numbers and maybe we are not as accurate as they were.

Either way, in my opinion the numbers are close enough for us to understand that there was a specific design to encode information relating to the number 432 as well as other "special" numbers.

Music as Alchemy

Who is this information for? It is certainly for the musicians who aspire to understand their role and influence in society. It is also for all those who recognise music as an agent of information and transformation.

In olden times, the hermetic motto "As above, so below" conveyed the understanding that everything in the universe is interconnected and that patterns are repeated endlessly on different scales. By understanding the phenomena that we can observe at our level, we can deduce how things work on a higher to a lower scale, from macrocosm to microcosm.

If we think in terms of resonance, we can picture how the frequencies we emit will resonate with everything they encounter. If the frequencies of the music we create are attuned to their higher and lower octaves in the space around us, then there is reason to think that we are creating consonant flows of energy.

"The role of the composer and performer is obvious...: they are the alchemists who help to transmute the earth by making its substance and souls resonate with echoes of heavenly music. This is the accomplishment of the Great Work of musical alchemy, which, like alchemy proper, aims towards the redemption of all Nature as well as to the reunion of Man with his Overself."¹⁴

Conclusion

As I wrote at the beginning of this article, this is far from being a complete presentation. Each point I've touched on and each source I've quoted would deserve a closer look. However, I hope readers have found enough material here to spark their curiosity and maybe the wish to research the topic themselves. The aspiration to create music consciously, if pursued with commitment, can lead to complex enquiries.

When I first came to know about other people's motives for adopting this alternative tuning, I enthusiastically joined in. Then, one piece of information after the next, I realised that in order to be truthful and consistent in my Art I needed a deeper understanding of the matter.

Now, years afterwards, I'm still excited to find new pieces for this puzzle and to be able to look at the picture with increasing objectivity.

About the Author:

Simone Vitale is a visionary musician, composer and sound healer. His work is dedicated to promoting an ecology of sound and music where kindness and mindfulness are the keys to a deeper connection with ourselves and each other.

In his project The Sound of Golden Light, Simone is following the call for a more ethical approach to Art. His deep understanding of the effects of sound and music on the human body, mind and soul is offered for the higher purpose of contributing to a reconnection with Nature in a time when this is urgently needed.

Bridging the worlds of Art and Medicine, The Sound of Golden Light presents a transformational, uplifting and heart-opening musical experience grounded in a well-researched and competent use of frequencies and harmony.

Simone's musical creation is multifaceted and includes: healing music, music for pregnancy and birth, music of the plants, live music for yoga and movement, inspirational songs and more. Simone is also a certified vocal yoga teacher and tuning fork therapy practitioner.

Originally from Rome, Italy, Simone Vitale has been based in Berlin, Germany for the last three years. He has been sharing his work internationally since 2012 in India (Kerala, Tamil Nadu), Germany, Estonia, Finland and New Zealand. He can be contacted by email at:

info@soundofgoldenlight.com

For more information, visit his website:
<http://www.soundofgoldenlight.com>

Endnotes

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Equal temperament is one of many solutions that have been found to this problem over the centuries, and it proved to be a convenient solution to make fixed-tuning instruments, like keyboards, easy to build, tune and play. It is the main tonal system in use in the Western world for fixed-tuning instruments.

The loss in this process is that the relationships between the notes of the scale (ratios) had to be "tempered" (hence the name "temperament"); that is to say, all the notes had to be adjusted (or altered) in order to fit into a scale made of 12 notes equally distant from each other (hence the name "equal").

The advantage of this system is that one can easily transpose music from one key to another or change key within one piece while retaining all the same musical intervals. This means that the interval (or distance) between a C and a C# is the same as the interval between a C# and a D; the interval between a D and a D# is the same as the interval between a D# and an E; and so on.
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VIVA THE ETHER!

Magnetism's Copernican Revolution

by Blake Taylor

© August 2016

The Greatest Non-Sequitur Sanctioned by Science

In 1887, shock waves went through the scientific community as physics underwent its "momentous, Earth-shattering metamorphosis". That year its physical form changed from something Newtonian, based on analysis and deduction, into a counterintuitive, irrational shape.

The catalyst of the transformation was the experimental proof that the speed of light is constant. The masters of the transformation were Albert Michelson and Edward Morely (M&M), who were looking for proof that the "all-permeating, luminiferous ether" supports electromagnetic phenomena such as magnetism and light.

The ether (or aether) existed in the minds of humans for at least three millennia. It was the invisible "atmosphere" and/or "spirit" that permeated all matter and life. It marched hand in hand with both metaphysics and physics, which included astrology, astronomy, telepathy, biology, light, gravity, electricity, magnetism and more. The perception of the ether grew steadily with science, peaking towards the end of the 19th century.

In 1760, Swiss mathematician Leonhard Euler stated his belief that the "luminiferous aether" which propagates light also propagates electrical phenomena. In the mid-1860s, British physicist James Clerk Maxwell, the father of electromagnetic wave theory, forcefully argued for a form of its existence.

In 1887 at the Case School of Applied Science in Cleveland, Ohio, M&M built a rigid-base table (it was literally anchored in bedrock), aimed their light-ray across it and fired. They reasoned that since planet Earth is flying through the ether at various speeds and directions, then light-rays fired in some directions would prosper over rays fired in other directions.

However, M&M determined the speed of light to be invariable, constant, so they illogically concluded that the ether didn't exist. "If we can't find it, it's not there!" This was and still is one of the greatest non-sequiturs inflicted upon science: if "c" is a constant, then there is "no ether"—and yet science sanctioned it!

Had M&M designed their experiment to show that there was "no ether", they would have expected to see the speed of light vary perfectly with the speed of the Earth as it orbits the Sun. Thus, at midnight on the equator, light would be expected to be about 108,000 kilometres per hour (kph) faster travelling west to east and 108,000 kph slower travelling east to west.

Here, when M&M found the speed of light to be constant irrespective of the Earth's velocity, they would have been absolutely totally justified in concluding that some optically invisible medium existed which kept the speed of light constant, or that the constant speed of light was not affected by that medium.

Absurdly, changing the intent of the experiment altered the result.

M&M, however, were satisfied with their irrational conclusion that the ether didn't exist. It was dead, but it was not erased! It haemorrhaged in purgatory for about 20 years until Albert Einstein delivered his coup de grace, sealed it in a relatively heavy sarcophagus and buried it in the unkempt graveyard of toppled theories.

There it suffocated beneath the ever-vigilant "professorial guards" and their precursors. Occasionally a maverick would creep in at night and put forget-me-nots on the grave, but these were quickly withered by the guards' fusty breath.

As the 19th century rolled into the 20th and the 20th into the 21st, the rebellious visitors dwindled; but in the heart of hearts of a few scientists and all Trekkies, lonely ethereal embers still smoulder, waiting for a logical breeze.

Three Natural Illusions

There are three really great illusions which deceived or continue to deceive mankind.

The first one is that the Sun circles the Earth, which Copernicus resolved.

The third, and probably the greatest one, is the illusion that space—ether, which appears to be transparent—is a total void.

In between them is the magnetism illusion, which is resolved here. *The logical explanation of magnetism is the key to reinstating the ether.*

The Magnetism Illusion

The magnetism illusion is a directional one. It has been misleading science for over two-and-a-half millennia.

Early investigations gave the clear impression that something left the front end of a magnetite or lodestone rod and circled around to its rear end. The patterns resulting from iron dust or filings sprinkled on a page stationed above the rod reinforced this impression. (See figure 1 below.)

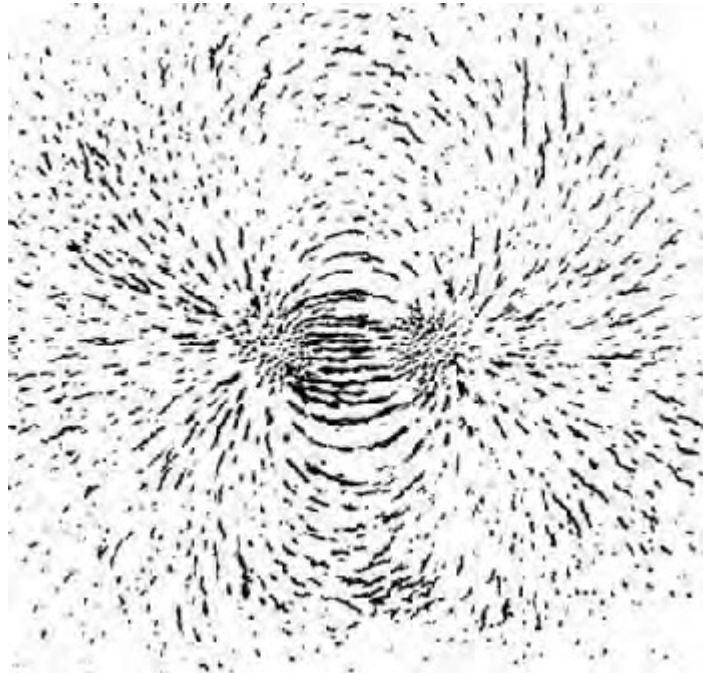


Figure 1: Iron filings over a bar magnet

In 1820, when Danish physicist Hans Christian Oersted saw a compass pointing north-south perpendicular to its east-west conducting current, he proclaimed that "magnetism encircles its current". This was an illusion which the compass conjured, and science has been suffering from it ever since.

Had electricity been discovered before lodestone or magnetite, this illusion would never have materialised. Science would have logically concluded that an invisible magnetic wind flows co-parallel with its conductor.

Thus, two co-parallel conductors attract each other because they require less energy to maintain the wind between them. Anti-parallel conductors repel each other because the pressure increases between them. (These are all basic principles of the 18th-century Swiss mathematician and physicist Daniel Bernoulli.)

Circular conductors then rotate their magnetism, generating vortices through them and surrounding them. Aligned coils with like spin attract because their vortices require less energy to spin the magnetic vortex between them. Aligned counter-rotating coils repel. North poles then are anti-clockwise poles (A-poles) and south poles are clockwise poles (C-poles).

Since these coils operate in outer space, then what they are spinning must be space itself—the ether.

When we graft this sensible direction into and onto ferromagnets, we see that magnets are constructs of minute, magnetic, spinning columns created by atomic and molecular orbiting electrons. At the tangent points, the columns move in the opposite direction and therefore are self-repulsive. They are held in place by the atomic forces of the iron lattice.

Thousands of these mini-vortices project out from the pole-faces where, now free of the atomic lattice, they burst

away from each other, expanding as they go.

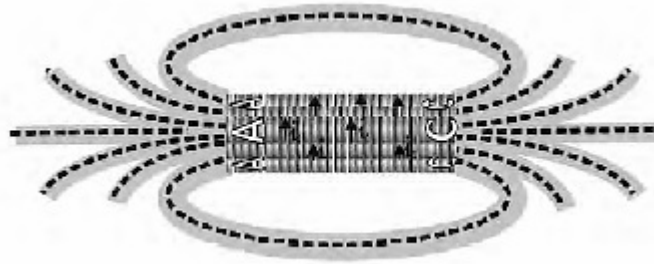


Figure 2: Multi-core magnetic vortices

Some on the outside are pushed so far that they link up with the vortices from the other pole. (See figure 2 above.)

When iron filings fall onto a page above these vortices, they become magnetised with simpatico minimini-filing vortices. These filings are aligned along the *eyes* of the magnet's mini-vortices. They are *not* lines of force.

Mini-vortices emerging from a pole-face collectively become a maxi-vortex.

When a charge or a current with its own magnetic wind enters a vortex between two like-spinning current coils or magnets, it would be, say, pushed down by the co-parallel wind elements of the vortex above it and simultaneously pulled down by the anti-parallel elements of the vortex below it.

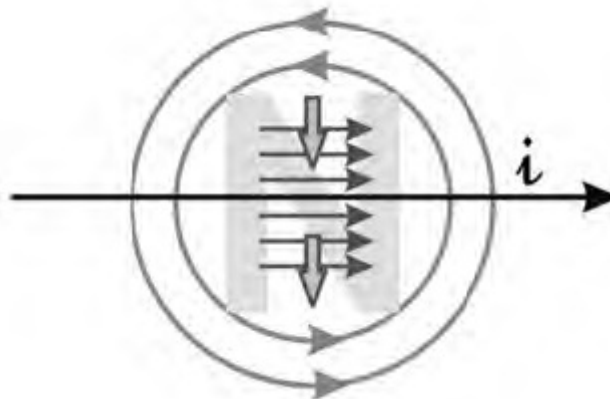


Figure 3: Vortex force on conductor

When the current or the vortex is reversed, the conductor is accordingly forced up. (See figure 3 above.)

Here is the first and only logical explanation for the perpendicular-to-current forces which drive electric motors. Indeed, it is so superlogical that it is impossible to deny, unless one is a flat-Earther.

Magnets and coils logically spin space, so what is space?

Fields and Flows

For half a century before the Michelson-Morley experiment in 1887, science had been using the term "fields" to describe electromagnetic phenomena in the ether, but now space was gutted. It had no ether.

The fields then became paranormal, even supernatural. They might as well have been called "spells". Magnets or electric charges then cast magic spells of attraction or repulsion. The stronger the spell, the stronger the magnet or charge.

Measurable fields of nothing with no explanation for them is ludicrous science.

Magnetic ether winds superlogically depose intangible magnetic "fields", so what sort of ether wind deposes

intangible electric "fields"?

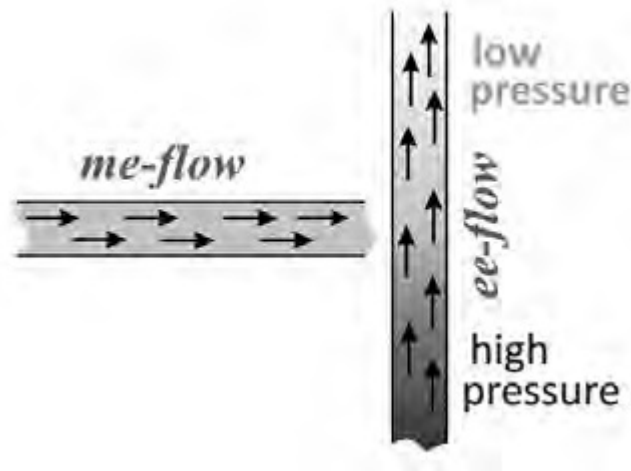


Figure 4: Magnetic energy versus electric energy

The answer is, in a word, *pressure!* (See figure 4 above.)

Magnetic ether flow, *me-flow*, is at a constant pressure, whereas electrostatic ether flow, *ee-flow*, travels from a high-pressure source to a low one.

If a frictionless test object is placed in a magnetic wind, the pressure at its head will always be equal to the pressure at its tail. This is analogous to pressures associated with water flowing at a constant speed through a pipe parallel to the Earth.

If a frictionless test object is placed in an electrostatic wind, the pressure at its head will always be greater than the pressure at its tail. This is analogous to pressures associated with water flowing at a constant speed up a vertical pipe.

Electrostatics and Ether Dynamics

A fluid map is made when water flows over a flat plaster surface previously impregnated with dye which changes colour when wetted.

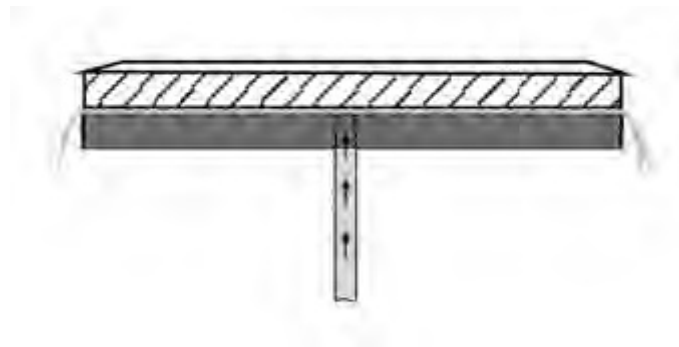


Figure 5: Pressurised fluid sandwich

A heavy sheet of glass rests on the plaster. (See figure 5 above.)

When water is pumped through the central inlet, it flows outwards through the sandwich. It flows along a wetted surface much easier than it does across a dry one. So as soon as these wetted avenues get started, the water bursts forth as clear, expanding spokes of radial flow, separated by expanding spokes of dry no-flow. Photographs are then taken through the glass.

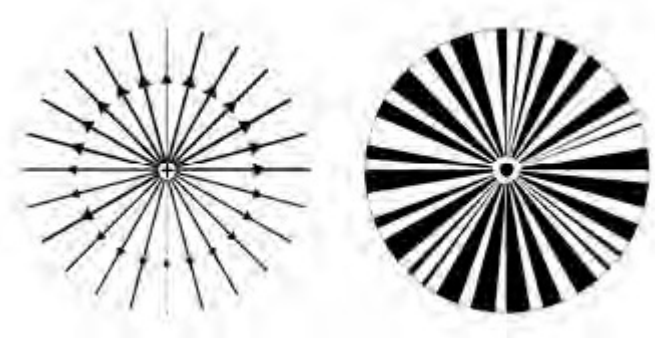


Figure 6:
Positive charge (left); fluid map (right)

Comparisons with the conventional representations of so-called "electric fields" speak for themselves. (See figure 6 above.)

For a pump-sink map, the perimeter of the experiment is submerged in a holding tank. Water is pumped through the inlet and sucked out with equal force through the sink hole a short distance away.

These fluid maps have been around for over 60 years. However, deprived of the existence of the ether, science could do nought but look on. It was interesting but not significant.

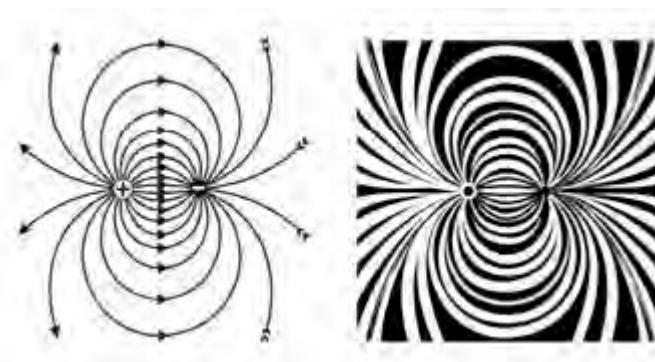


Figure 7:
Electric dipole (left); fluid map (right)

On the other hand, in *ether dynamics* the comparison is compelling. (See figure 7 above.)

This work explores an *ether dynamic* explanation of electric charge, building on the similarities between the "electric field" maps and the fluid maps.

To accomplish this, it must present a good reason why:

a) a stationary electric charge is attracted to its opposite charge but absolutely ignored by any steady magnetic wind; and

b) a moving charge is always noticed and affected by any magnetic wind.

Theoretically, high-pressure ether leaves a positive charge and travels at light speed outwards through *ambient space ether*, which in free space is at ambient pressure, until it voids into a negative charge's zero-pressure point.

All attractions and repulsions then are pressure related, according to Bernoulli.

For this to happen, the positive charge must be supplied from somewhere and the negative charge must void it to somewhere. Accordingly, there are other dimensions (ignoring the bizarre idea that the source and the destination are a singularity).

Induction Explained

Ether dynamics provides the first-ever logical explanation of induction. Electrons in free space suck in ether from all

directions. When they are submerged in an *electric* wind, they draw themselves towards the high-pressure zone and continue moving until they contact the positive source.

When they are submerged in a *magnetic* wind, they adjust their intake, drawing more from the headwind side (because it requires less energy) and less from the tail side. Here they pull themselves into the wind with a velocity absolutely equal to that of the wind. Consequently, to the outside observer they are stationary.

If the wind goes up a notch, they readjust, increasing their forward intake and reducing their tail-side intake.

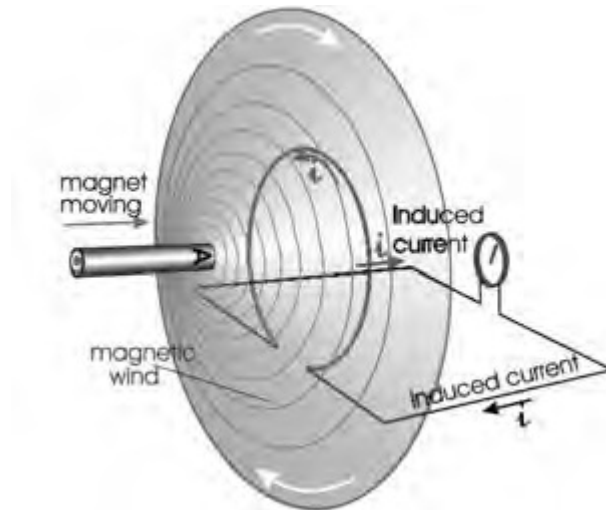


Figure 8: Magnet inducing a current

However, they cannot do this quickly enough and so they are briefly swept downstream until, after re-adjustment, they remain stationary again to the outside observer. (See figure 8 above.)

If the wind falls a notch, they power forward until they readjust. If the wind oscillates, the electrons oscillate in the opposite direction to the change.

Here is a speedboat analogy of induction. A speedboat in a river current is programmed to stay stationary relative to the river bank. When the speed of the current increases, the boat must increase its thrust. However, it is not quite quick enough. It is swept downstream some distance before its increased thrust steadies the boat, keeping it again stationary relative to its new downstream bank location.

The Ether Cycle

Theories in a three-dimension-plus-time universe become marvellously untangled when one adds a few more dimensions. Below is one of the many suggestions.

Picture an "anti-verse" where the detritus from black holes emerges. Here also is the destination for the energy from down quarks and electrons, muons and taus where they are now anti-matter. Under certain conditions, anti-electrons can be flipped over and appear briefly here as positrons.

The electrons are now antipositrons in the anti-verse. All particles this side are portals whose flip side is their anti-particles.

I see space as a chaotic light-speed fluid into which magnetic and coulomb forces inject order in their respective ways. The chaotic fluid has, in total, zero kinetic energy but it has potential energy which electromagnetic forces direct.

This energy translates as transparent matter which obviates dark matter. Its transparency is probably the greatest of all natural illusions.

An interesting question about this theoretical anti-verse is: what does time do? Does it go backwards? If so, could a neutrino zip into it for a while and then reappear further out in space at a time earlier than it zipped in? Could a spaceship do the same via wormhole portals?

Logic versus Mathematics

Mathematics used to be the servant of logic until it asserted its theoretical muscle, jettisoning logic in its wake.

The cockcrow of this travesty was the formula for the force of attraction or repulsion between charges and masses, which is inversely proportional to the square of the distance between them.

However, this is a "d-squared" area-type calculation which creates the illusion that a three-dimensional event can happily be described by a two-dimensional formula.

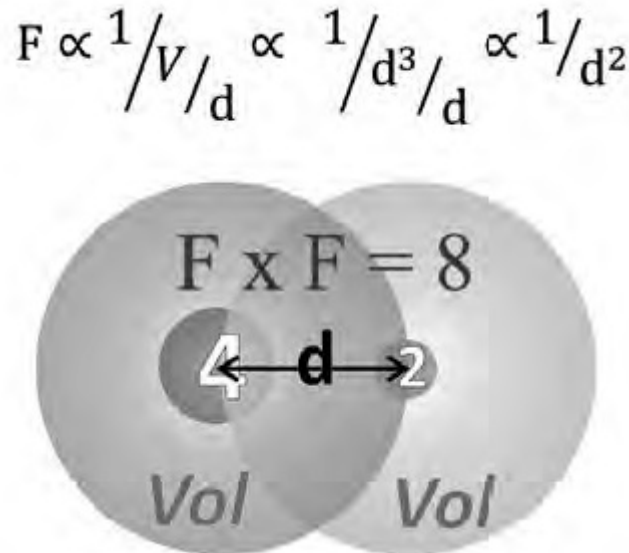


Figure 9: Logical distance squared

Sensibly, if the "d squared" is expressed as a volume "d cubed" divided by length "d", then we see why each charge or mass exerts a force on each other. (See the equation in figure 9 above.)

The result has the same value, but the interpretation of the event is real, not abstract.

The reality of the ether transforms all theories of electromagnetism and gravity. Maths buried it. Logic resurrects it.

Viva the Ether!

About the Author:

Blake Taylor is the author of *Physics Illusions and Revolutions* (Yowah Books, Australia, 2015; paperback, ebook, iBook), a chronological history of physics from ancient Greece to today and a presentation of his revolutionary theory of magnetism.

He was saved from academic indoctrination by a form of dyslexia which rendered him unable to pass written exams, thus giving him an unbiased platform from which to pursue the enigmas of magnetism and the universe. The result is Copernican.

In 2014, he was granted a patent for "Improvements to Magnetic Confinement of Plasma in Tokamaks".

Blake Taylor can be contacted by email at:
yowahbooks@gmail.com

For details on book ordering, visit:
<http://www.yowahbooks.com>

Mind over Matter

Placebos and Self-healing

The materialist, mechanistic, reductionist model based on Newton's scientific theories is being replaced by a new paradigm that incorporates holographic reality and the variables of mind and consciousness while acknowledging that we are all cosmically connected.

by **Bevis Beauvais**

© August 2016

Email: bevisbeauvais@yahoo.co.uk

The artist is always present beside the geometrician, and will be able to bend the formulas when necessary.

— Eugene Viollet-le-Duc (1814-1879)

Scientific Limitations

Some clear thinking, intelligent and independently minded people, particularly if they are what is considered by conventional standards to be well educated, find it difficult to fully accept anomalous phenomena, regardless of whether such things involve psychic abilities, apparitions, UFOs or even hypnosis and the placebo effect.

This instinctive scepticism, when it is self-aware and not driven by unconscious emotions, derives from the fact that institutional science has no paradigm or framework to explain how or why such seemingly atypical phenomena might occur.

Consequently sceptics are forced to explain reported events in terms of the dishonesty, gullibility or even insanity of the observers, even when those same observers are credible scientists with impeccable reputations. But, as wiser minds advise, we do well to remind ourselves that the materialist assumptions of conventional science are treated as self-evident truths and therefore have become akin to religious dogma.

True science is neither an ideology nor a dogmatic belief system: it is a method of enquiry. We may therefore legitimately question materialist assumptions and their concomitant belief system and ideology when they do not adequately encompass the research data.

Materialism, being the doctrine that whatever exists is either physical matter or dependent upon matter for its existence, restricts our view of life and Nature.

One of the things which continually hampers a useful integration of psychology and medicine, as well as prevents a fuller understanding of quantum mechanics and its application to other sciences and disciplines, is the materialist habit of failing to make a meaningful distinction between the brain and the mind. Scientists are also apt to forget, sometimes even deny, that our inner world of thought and feeling and the outer world of physical action are equally real.

Properly speaking, the brain, being made of matter, is merely a part of the body, whereas the mind is something altogether different since it is nonmaterial or *spiritual* in nature. Science does not much like the notion of spirituality—and understandably so, since it harks back to an age when the Church not only held sway over scientific endeavour but could also determine the life or death of an enquirer into truth.

In Philip Kerr's historical detective novel *Dark Matter* (2002), it is considered by Isaac Newton that the Spanish Inquisition's use of the rack "would explain why so little science emanates from that country". He continues: "God knows how many great scientific minds were stunted when Galileo, the greatest mind of the century, was tried for heresy."

But *spiritual* does not necessarily mean *religious*, for it was once an everyday secular idea hinted at in English grammar, which taught that there are two types of things of which we can be aware: *concrete nouns*, being the palpable objects that we can actually touch, like apples, trees and snakes; and *abstract nouns*, being the intangible spiritual qualities that we sense, like love, life and wisdom.

By shunning the spiritual to concentrate on the materialistic, science views all things, including people, as mechanisms to be explained without recourse to *teleology* or intentions and goals. It uses *reductionism* to explain these machines by breaking them down into parts. Human behaviour is therefore ultimately reduced to the study of inanimate matter as living things are understood in terms of chemistry and physics, which themselves are reduced to atomic and subatomic particles.

Creative thinkers have been prophesying for decades of the time when this outdated Newtonian mechanistic, materialist and reductionist science would give way to a new vision of life and the cosmos based more firmly upon the findings of quantum mechanics that are already now a century old.

A new *holographic paradigm* for the universe, springing from physicist David Bohm's ideas of *holomovement* and *implicate order*, has been developed and popularised by talented writers like Michael Talbot to provide a workable metaphor to bridge the gap between matter and mind and between science and anomalous phenomena in both their commonplace and more exotic forms.

Einstein was never happy about the uncertain and stochastic nature of quantum mechanics and was unshakeable in his belief that there were hidden variables still to be found. Today physicists like Roger Penrose seem to affirm that mind and consciousness constitute those variables. Both the *uncertainty principle* and the *observer effect* had hinted at the role of consciousness in shaping reality from the earliest days of quantum mechanics.

Meanwhile parapsychology, which connects the two islands of physics and psychology, has evidence that minds can affect other minds through telepathy and can affect matter through telekinesis, while the *experimenter effect* suggests that observations in all sciences will be affected to some degree by the minds and intentions of the scientists who make them.

The important finding to deduce from modern physics and parapsychology is that minds may affect both matter and other minds. Our positive thoughts, meditations and prayers are therefore a factor in health and healing, as are our negative thoughts and feelings both towards ourselves and others. As well as having obvious consequences for medicine and clinical psychology, these findings carry enormous ethical implications for teachers, entertainers, propagandists and advertisers, regardless of whether they are well or ill intentioned or whether or not vested interests are involved.

Hints of Mind Power

These days we are all aware of the placebo effect in which a patient's health is enhanced by the consumption of an inert and harmless substance.

A BBC programme on the subject documented cases of placebos improving the performances of athletes, alleviating the symptoms of Parkinson's disease, healing a broken back more quickly, and even altering blood constituency from its expected state at high altitude.

The documentary highlighted the psychosomatic origin of the placebo effect by a demonstration of tooth extraction under hypnosis without an anaesthetic, where again the power of the mind was evident.

The inescapable conclusion is that a patient's beliefs and expectations are responsible for the placebo effect and that such cures and health-enhancing phenomena are psychogenic in origin since they are not caused by an active biological compound.

Interesting though the documentary was, it could have gone much further, although it is understandable that such a high-profile mainstream program might err on the side of caution.

The psychologist and author Stan Gooch was less hesitant in his work *The Secret Life of Humans* (1981) and recounts trawling through medical journals for unexplained cases. He found many interesting examples, one of which even suggested the possibility that DNA had been recoded. Today this might be explained in terms of various genes being switched on and off, and classified as *epigenetics*.

Gooch related a case of a congenital condition called *ichthyosis* where the skin has the appearance of a crocodile-like texture. The patient had the condition all over his body except for the head, neck and chest. Skin grafts became the same as infected areas within a month, but Dr Albert Mason successfully used hypnosis to cure the left arm: "From a black and armour-like casing the skin became pink and soft within a few days." This was repeated for the other areas of the body and was about 90 per cent successful.

Coded DNA instructions appear to be capable of modification.

We are told that our brain stops growing fairly early in life but is still able to increase its capability through making connections between neurons. And yet study of the hippocampus region responsible for spatial mapping seems to suggest otherwise, since scans of London taxi drivers demonstrate a correlation between hippocampus size and the number of years they have worked as a cabby. We may not be as genetically restricted as we believe, and *neurogenesis*, or the regeneration of neurons, is a distinct possibility.

Lesser-known early psychoanalytic literature contains an example of an adult of small stature increasing their height after therapy, following an analysis that uncovered a family history in which their diagnosed neurosis had been traced to domineering relatives. Elsewhere and more recently it has been discovered that electrical stimulation induces growth of new teeth, even after the second set has been completed. In both cases there appears to be

more genetic flexibility than we might suppose.

And then there is the matter of scar tissue. Deepak Chopra's *Ageless Body, Timeless Mind* (1993) tells us that our cells are constantly being replaced as old ones die. Every three months our skin is composed of completely new cells, while bones are renewed within 12 years. Although the form of each new cell is identical to the old one, its substance is made of entirely new matter taken from the intake of food and air.

Is it not strange, therefore, that the scar tissue is also replicated? Instructions will not have been coded into our genes at birth since it has been acquired by way of an environmental event, i.e., an injury. It is rather like the ghost of Leonardo da Vinci replicating the Mona Lisa painting from the blueprint of his original sketchbook but including the blemishes of damage and ageing processes that affected the painting over the years.

We might dispute whether our bodies are built and repaired solely on instructions from DNA being passed *linearly* from cell to cell like Chinese whispers. After all, we know very well what genes do: they ensure that the necessary amino acids and proteins are created at the required time. But there is no evidence that the genes specify *morphology* or form.

Philosophies of ancient and esoteric schools of thought suggest that the substance of material objects and living bodies alike are patterned into form by an overarching field of influence, which they call a *spirit*. By analogy, we might recall school physics lessons when iron filings were patterned into flux lines by a magnet emitting the invisible and intangible influence that science calls a *magnetic field*.

Cambridge biologist Rupert Sheldrake, a heretic to all intents and purposes, has proposed the theory of *formative causation* and popularised the term *morphogenic fields* to account for the global or holistic growth of bodies and organs.

He draws the analogy that even though the necessary materials may be delivered to a building site at the required time, we do not expect them to assemble themselves into a building. Similarly, DNA delivers the raw materials but does not specify the form in which they are to be arranged.

Like all good heretics, Sheldrake was pilloried for voicing unorthodox views, although in print rather than upon the stake. Mercifully the scientific establishment became less inquisitorial over the years, for while *Nature* reviewed *A New Science of Life* (1981) under the title "A book for burning?", *New Scientist* described his equally heretical *The Presence of the Past* (1988) with such words as "tour de force", "engaging" and "provocative". But original minds like Sheldrake's will always ruffle the feathers of complacent elites, not least because they secretly suspect he is more sincere about science than they.

To Please or To Harm

Less sensationally than the aforementioned examples of epigenetics, the broadcasting corporation could have informed its British licence fee payers how the placebo response can be elicited in conjunction with actual medicines to increase their effectiveness by setting up a patient's positive expectations through the doctor's confident and optimistic "bedside manner"—a quaint term easily forgotten in our high-tech era.

Further still, the programme could have discussed the possibility of treating some ailments without any medicine at all, based purely upon exercise, diet and what might be termed the *power of positive suggestion*.

But perhaps the most glaring omission of the documentary was a discussion of what might be called the *negative placebo effect*, whereby a patient's health actually deteriorates, sometimes even fatally, as a result of negative expectations.

The word *placebo* comes from a Latin word meaning "I shall please". Similarly, negative instances of the phenomenon have been termed the *nocebo* effect from the Latin word meaning "I shall harm". The use of the term *nocebo* in medical contexts has been more ambiguous than the use of *placebo*. A consistent and practical use of these terms would employ *placebo* when health is enhanced by positive attitudes and expectations, and *nocebo* when health deteriorates from *negative* expectations.

Anthropologists had coined the terms *placebo* and *nocebo* to describe rituals used in primal societies with benevolent or malevolent intent respectively, where belief plays an important role. Dramatic examples of *nocebo* effects would be someone dying a "self-willed" death after being ritually cursed by a witch doctor, and a person dying of fright after being bitten by a non-poisonous snake.

Researchers draw parallels between this phenomenon and cases within modern industrial cultures where fatal medical prognoses are followed by a premature death that occurs even before enough time has elapsed for an illness or malignancy to ordinarily have developed sufficiently to cause loss of life.

Since placebo and *nocebo* responses are governed by a patient's attitude and expectations, and since we know from psychology that people's attitudes are more likely to be influenced by a credible source, then it is apparent

that the manner and bearing of medical practitioners strongly influence a patient's thinking because doctors are almost universally viewed within our culture as authoritative and therefore highly credible sources.

Further, and very significantly, a doctor's diagnosis may elicit a placebo or nocebo response even before any treatment has begun. Psychology would predict this both in cases where a negative prognosis is verbally given to a patient and sometimes when a doctor gives a positive prognosis while concealing the negative reality of the situation, since there may be some non-verbal leakage of information in which the doctor's body language gives the game away.

Despite its undeniable reality, the placebo response has not been as fully utilised as one might expect, owing to the sociology of the academic, medical and pharmaceutical communities.

Overworked GPs come under pressure from powerful international pharmaceutical corporations using aggressive and highly sophisticated marketing strategies in their eagerness for profit and the recuperation of heavy investment in research and development programs.

Corporations are financially capable of skewing research data within a scientific field dependent upon limited resources by subsidising independent studies with their own commercial interests in mind, which are then publicised by insufficiently critical journalists of mass media outlets rendered timorous by their want of scientific credential.

As well as commercial pressure from the pharmaceutical industry comes that stemming from surgical reliance on sophisticated and expensive technology, since manufacturers and operators are additional beneficiaries vying for a percentage of hospital budgets.

Consequently finance, vested interests, target culture and politics may all complicate the medical decisions made by even the most intelligent and independent-minded doctors already working under stressful conditions and with responsibilities that are part and parcel of their daily workload.

Admittedly, clever marketing and selective presentation of statistics for a relatively ineffectual drug may induce a positive belief in GPs whose subsequent expectation and endorsement may elicit a placebo response in the patient. But there are still unpleasant and harmful side-effects to consider and there is the question of ethics: are alternative forms of medicine and healing being driven underground by powerful commercial and political interests?

Science and the Observer Effect

The placebo responses that highlight the role played by the mind in physical health would be interesting enough in themselves, but there is another dimension of experience which must be mentioned for the sake of completeness.

This is the *observer effect*, which occurs in both modern physics and parapsychology when the form of an objective phenomenon under study is influenced by the subjective perception of the observer. In physics we have the oft-quoted example of light manifesting as a waveform or as a particle depending on how an experiment is set up and measured or observed.

For a more intuitive understanding of the observer effect, we have the Magic Eye pictures or even simpler optical illusions where an at first seemingly chaotic array of colours, lines or figures may, upon closer inspection, transform themselves into a meaningful picture only after our mind has imposed meaning upon them, since perception has now been combined with understanding.

We might also consider that observer effects are apparent in most areas of psychology, since subjects' minds under research or therapy react to what is happening to them. If someone is asked to remember their past and given means of elaboration through free-association or dream interpretation, they may recall or reconstruct previously unconscious ideas and experiences which then become a part of their conscious memory and experience and therefore a potentially modifying influence upon their everyday thinking, perception and behaviour.

In parapsychology, an observer effect is evident when the outcomes of experiments are affected by the belief system of the experimenter, with sceptical scientists less likely to observe instances of *psi* phenomena (telepathy, precognition, clairvoyance and telekinesis) than their open-minded colleagues. This is known as the *experimenter effect* and occurs despite stringent controls introduced to remove subjective bias.

Great care is taken to ensure that the subject of the experiment cannot witness any non-verbal cues such as facial expressions or verbal tones that could leak information. And *double-blind* experimental designs are used in which neither subject nor scientist is aware of the precise nature of the data and trials under observation. We therefore have evidence under scientifically controlled conditions of minds affecting other minds without any intervening influences from sensory information—hence the term *extrasensory perception* or ESP.

Another instance of the observer effect apparent to parapsychologists is the way in which anomalous phenomena are reported by witnesses. Strange lights appearing in the sky above a Stone Age burial mound are reported

according to the individual belief system of the observer. A Christian may see angels while someone else reports the same phenomenon as flying saucers.

Whatever an anomalous phenomenon is in itself is beyond the categories of our perceptual system and so our mind clothes it in the form of something it already knows. Not everyone in the crowd at Fatima saw the Virgin Mary or heard her voice as the children did: some people saw a bright light and heard buzzing sounds.

Questioning Mindless Medicine

The recent institutional craze is for dementia of varying descriptions, all of which are considered with little more than philosophical and historical prejudice, to be diseases of the brain rather than the mind. Naturally, pharmaceutical companies and their *genetic-determinist* colleagues in the scientific world are waiting in the wings to take away the fearful problem they have laboured so hard to bring to our attention.

If we consider dementia as a problem of the mind and culture rather than merely of the brain, we are obliged to look into the stress and social neglect of modern life.

That is the effect upon the lonely and elderly of watching hours and hours of toxic television involving constant news of serious crime?

And of "entertainment" programmes, obsessed with those very same crimes, vividly portraying graphic violence and psychological menace?

Nor should we forget those high-powered disorientating advertisements that bombard minds with increasing frequency, which as a form of propaganda and brainwashing strategy would certainly be outlawed by the Geneva Convention if practised upon captives.

But while the boundaries between fact and fiction are constantly blurred for everyday folk, they are never certain even for specialists. If someone has an enormous growth on their throat as depicted in the photographs on cigarette packs designed to scare people off smoking, then a tumour seems obvious.

But many cancer cases stem from the diagnosis of reported symptoms leading to internal tests at the microscopic level, where there is considerably more ambiguity since they rely on subjective judgements based upon a statistical prediction of outcomes.

While the elderly remember relatively few cases of the disease when they were young, today we are told that one in two of us may expect to have some form of cancer during our lifetime, as if the condition is somehow normal.

Often people in good health only find out they have cancer when a routine health check tells them they have signs associated with the disease and they are referred for hospital tests. Sometimes folk suffering moderately ill health may find their commonplace complaints are nowadays part of a catch-all symptom complex for cancer test referral.

Channelled along the test path and in a state of panic, such patients act out a tragically familiar tale: told they now definitely have cancer, they begin the decline that continues despite an armoury of aggressive treatments with alarming side-effects until the end is reached which everybody was expecting. How much of this is nocebo and potentially avoidable?

A drug's clinical trial success rate for a group of patients, compared to a control population sample using a sham treatment, forms the basis for any pharmaceutical claim to cure an illness. But a true base rate for comparison would come from a group who were never told they had symptoms requiring treatment in the first place. This would show the natural development and outcome of a symptom or symptom complex.

Unfortunately such data does not exist and cannot be obtained without consent and the consequent possibility of triggering a nocebo response with the diagnosis. This is another example of the challenges that the observer effect presents.

Additionally we are obliged to consider the possibility that the perception of phenomena is altered through the experimenter effect, which is especially relevant in the light that doctors of varying temperaments and outlooks are seeking signs at a microscopic level of uncertainty.

Self-evidently, human beings are more difficult to study than machines because they and the doctors who treat them have complex entities called *minds*, which is why the materialist paradigm is of limited value beyond the discipline of mechanical engineering for which it was designed and where it has proved useful.

Inside, Outside and the Cosmic Hologram

Conjuring up in our mind's eye (and without our spouse's or partner's knowledge if we are sensible) an image of our favourite film star upon a beautiful beach in a lovely location, we might add a number of artistic touches such

as the sound of the sea and gulls and the sight of the sea breeze blowing through their hair.

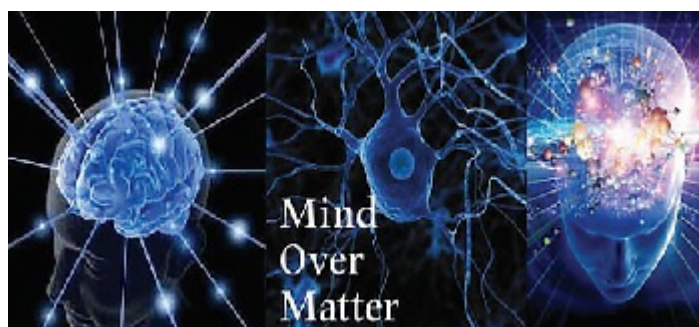
And yet if, while we are doing this, a scientist scans our brain, they will have a much less inspiring picture since all they see is a diagram showing patterns of neuronal activity brightened up with a few artificial and arbitrarily contrived colours. The subjective picture in our mind and the neuronal map of our brain are two entirely different facets of life.

If instead of this fantasy we were actually on a beach with our film star, then, in the yogic conception of things, it would be said that the film star's image in our mind's eye and their actual physical presence on the beach both exist in and emanate from the mind of God and that there is, therefore, no vital distinction between them since they are both composed of the same medium, i.e., the mind-stuff of God. The usual dichotomy of *subjective experience* (the film star's image in our mind) and *object* (the actual film star on the beach) is therefore partly illusory.

Further still, in yogic conception there is no true separation between us as a physical object and the actual film star as a physical object because, again, both exist within the mind of God and are therefore composed of the same divine mind-stuff.

An analogy would be two whirlpools in a river which, while appearing as separate objects, are actually both composed of the same continuous medium—water in this instance. Being composed of the same stuff, they may therefore influence one another by resonance transmitted through the water.

The analogy contains the interesting possibility that our two whirlpools may each be influenced simultaneously by a cause external to both that resonates through the medium of the water to link them through synchronicity. Taking this a little further, material causes may not always originate in material objects themselves or even in spiritual minds but may originate from independent and more highly abstracted spiritual causes.



Our foray into yogic conceptions allows us to entertain the possibility that material bodies and spiritual minds may not be as separate as we suppose them to be, since they are all ultimately composed of the same continuous medium: the mind of God, or perchance Goddess, or even some neuter Grand Architect of the Universe if one's fancy is so inclined.

And being composed of the same medium allows the possibility that one person can influence another through resonance patterns set up by the mind. In other words, we have the potential to heal the bodies and minds of both ourselves and others through the action of the mind.

This idea of the non-separation of material objects is sufficiently important to require one further analogy to fully drive it home. If we watch two people on television throwing a ball to one another, we perceive all three things as separate objects.

But in reality, the people and the ball are all composed of the same connected material: the screen of the television. There is no true separation of objects or the mechanical causality between them since they are all created and moved simultaneously by an independent force, in this example an external radio or microwave signal.

The point of these analogies, as previous and more technically competent visionaries have already voiced, is that Eastern philosophy and modern physics have much in common. The old Newtonian idea of physical forces operating upon material objects in a purely mechanical and mathematically reducible universe is of limited explanatory power and requires updating.

The conception of modern physics is that all objects are composed of the same quantum probability wave or, less abstractly, of the same *quantum field* which has now become a kind of modern *aether—the zero-point energy (ZPE) field*.

In other words, the ancient idea of an *aether* (or ether), which was still believed in the 19th century to fill all vacuums but eventually became an outmoded scientific concept with Einstein's relativity theories, is now back on the drawing board. However, the *vacuum* is better termed the *plenum* since it is effectively no longer considered

empty but full and might be expected to function through networks of nested hierarchies coordinated into holistic harmony with both horizontal and vertical harmonic order.

Where yogis and mystics speak of the mind of God, we may speak of the *cosmic hologram* or, more accurately, the *cosmic holograph*. This metaphor (and, of course, all scientific models and theories are only ever temporary metaphors) allows us to conceive of the objects and events of the observable phenomenal world as being controlled ultimately by a unitary source, that source being the entity that creates and moves the cosmic holograph.

We may now more easily entertain the possibility of psychic or paranormal phenomena since our new model of the world, unlike the dogmatic rationalist assumption, allows us to embrace anomalous scientific and experimental data which were hitherto considered inadmissible evidence since the materialist philosophical model forbade their consideration.

In our new paradigm, the transfer of extrasensory information or energy is now no longer impossible because there is no true separation between individuals either as objects or as minds since they are connected by the modern aether or ZPE field.

Implications for a New Dispensation

When the long-overdue effort has been made to fully integrate psychology and medicine based upon the commonplace and indisputable placebo response, and when this synthesis is combined with the integration of physics and parapsychology in the light of the observer and experimenter effects, we may then have the beginnings of a workable science that begins to fulfil the full breadth of our human experiences and needs.

This may allow us to finally evolve beyond our sole and naive reliance upon those religions that contain pure nuggets of spiritual wisdom adulterated with political dross and which consequently prove continually and lethally socially divisive. It may also allow us to improve our economic and political systems that always fail to quite bring us the peace, health and contentment we crave.

A science that teaches us as individuals and institutions to choose our thoughts, words and deeds more carefully for the impact they might have will help us work towards a social and ecological harmony founded upon an intelligent and responsible concern with the wellbeing of the bodies and minds of ourselves and others.

This will provide a plateau from where we may explore our freedom of expression and the existence, or otherwise, of our souls and spirits—both within the three or four dimensions of this earthly realm we know of, and any of which we may currently be ignorant and unaware.

In the creations of the human spirit, the rules have never been a fetter for any but ignorant mediocrities; they are an efficient help and stimulant for superior minds.

— Eugene Viollet-le-Duc

About the Author:

Bevis Beauvais lives in an English village where he teaches drumming, plays guitar and writes songs. His degrees are in psychology and ethnomusicology. He listens to The Beatles and loves Nature. He can be contacted by email at:

bevisbeauvais@yahoo.co.uk.

Crop Circles of 2016

Back to the Heartlands

This season saw the ever-fascinating crop circle mystery fall quieter around the world but remain strong in the English heartlands, where many impressive masterpieces made their presence felt and stirred valuable debate as intensely as ever.

by Andy Thomas

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Email:

info@vitalsignspublishing.co.uk

Websites:

www.truthagenda.org

www.vitalsignspublishing.co.uk

Ambition and Drama

On 12 August 2016, near the English village of Ansty in Wiltshire, a huge and highly [elaborate mandala](#) appeared in a wheat field.

Its central motif resembled leaves, petals and a complex array of curved diamonds, surrounded by 20 intriguing but unidentified symbols with a Hindu-like feel to them.

Thin rectangular dashes ran around the outer perimeter. Perhaps the most sophisticated and ambitious crop formation in a few years, it was even reported by a number of British newspapers after what had felt like a long news blackout on the phenomenon.

Then, naturally, the questioning started, even among crop circle researchers. Did it look perhaps a little too ambitious, too busy, too "unnatural"? Was it a commissioned artwork made to raise money for charities, courtesy of the nearby farm shop that was charging £5 a head to go inside it? Was it, in fact, a commercial logo, resembling as it did, in part, the central emblem of a company that makes smoking bongs ("pipes of peace")?

As the doubt set in, the leading Crop Circle Connector website felt moved to put a notice on its site (<http://www.cocreatorsworld.com/the-crop-circle-company-logo/>) decrying such speculation, while others said it was clearly an extraterrestrial intervention designed to tap into our usual human hopes and fears by deliberately including controversial elements.

In other words, 2016 was demonstrating that once again the Great Crop Circle Debate is more than alive and well, with all the requisite drama and discussion that these remarkable patterns in the fields always inspire.

All these years on and the circles continue to provide a unique window of opportunity where we are forced to reassess our belief boundaries, sifting what we can and can't accept and reconsidering the whole nature of the world around us in the process. The deep disputes may even be a key factor in their ever-elusive purpose.

Early Months

The Netherlands saw the 2016 global season begin with a simple Celtic cross in grass at the now regular site of Hoeven, Noord-Brabant, on 9 April, with a more complex pictogram following there on 6 May—the same day the traditional English centre of activity kicked off with an unusual but pleasing pentagon-based pattern in rapeseed at East Kennett, Wiltshire.

Thus things were a little late to start here compared to some years, but three more simple circles or ringed circles would arrive in Wiltshire throughout May.

Meanwhile, Germany received a neat spiral swirl at Brandenburg, Großziethen, on 15 May, the first of a number of modest-sized but rather sweet designs that country would receive over the summer, resembling flowers or butterflies.

Occasionally crop formations transform themselves, and the basic ringed circle in barley which had arrived near Silbury Hill, Wiltshire, on 28 May performed such a trick on 5 June, unexpectedly blossoming into a five-pointed star with outer spirals.

Indeed, June would see a burst of new ingenuity, now all in grain crops, producing several fine entries. The English standouts included a 10-pointed star at Mere, Wiltshire, on 5 June, with a more unusual pictogram of a diamond with circles and crescents appearing nearby the next day.

Hampshire also reactivated, with a complex flower in the classic area of Chilcomb Down on 21 June, and then a clever array of thin crescents within a ring at Tichborne on 24 June, its effect calling to mind the shine from a compact disc. A diamond-shaped cluster of "flowers of life" followed at Popham on 28 June.

Back in Wiltshire, at Hackpen Hill on 23 June, controversy raised two heads. A clever motif of a [pair of stylised sharks](#) swimming in a circle seemed too contrived for some observers to take seriously. Yet, as some pointed out, if "alien faces" (see *Two Faces* section) can be accepted as meaningful, why not sharks?

The fact that this appeared on the very day that Britain—even more controversially—elected to begin the process of leaving the European Union made it seem pertinent, with a number of people wondering about its message. Should we watch out for "sharks" along the way? But, if so, on which side were the sharks? Perhaps the ouroboros-like nature of the design was making the point that there will be sharks in the pool whichever way a nation swims.

Another Wiltshire highlight in June was a neatly notched pentagon in a ring at Stourton on the 29th, the second English pentagon of the year. Was the pentagon theme some kind of reference to the USA's alleged hegemonic desire for Britain to stay under the more conveniently controllable umbrella of the EU?

Regardless of the truth, such speculation demonstrates once more the power of the crop formations to make people *think*.

As for the USA itself, rarely a hotspot for the phenomenon, it did not manage to produce a single crop circle in the summer of 2016, but another superpower, Russia, did receive a curious pair of joined circles with interestingly merged swirls at Krasnodar, Krasnodarskiy, on 9 June.

The night before this, back in usually more active Europe, Italy came up with its one proper event of the year (at the time of writing) in the form of a sixfold mesh of rings around a central circle at Vanzaghello, near Milan. Italy has been busy with formations in recent years, but for this season, disappointingly, the only other was a logo made for the Buongrano biscuit brand, leaving some to wonder why the Italians had been left bereft, with not even their usual one-off masterpiece in the Torino area.

July Highlights

Aside from a number of retro-looking pictograms and a ringed circle with astronomical-style standing tufts in the Netherlands (with the now requisite tales of balls of light and strange synchronicities around some of the Dutch events from the ever-controversial psychic Robbert van den Broeke), and one very wobbly-looking ringed circle in Switzerland, only Germany provided any major global developments in July.

An eightfold floral pattern was found back at Brandenburg on the 12th, and then, spectacularly, the best of the Germanic designs arrived on the 23rd with a very impressive spread of [wide crescents in a fourfold motif](#) at Mammendorf, Bavaria. The arrangement called to mind clusters of atoms or molecules, and its neatness and fine lay made it a general highlight of the year.

It was left to England to provide the majority of July's artworks, with most of those in the traditional centre of Wiltshire. Among the notables: a seven-pointed star and crescent surrounded by a ring of many small standing rectangles near Stonehenge on 8 July made up for some geometrical anomalies with its striking overall effect; a "smiling heart" with a curious radial strip (the "smile") at the centre of its lay was one of the more unusual designs of the year, at Wilton on the 15th; a thin lattice-like array of triangles and diamonds within a ring punctuated with three circles at Hackpen Hill on the 16th made for another unusual approach.

Some old circle haunts seemed to be consciously revisited in July. A non-Wiltshire highlight arrived at Cheesefoot Head in Hampshire on 25 July in the form of a very neat fivefold emblem resembling twisted twine. The Cheesefoot area was once upon a time the central hotspot for crop circles in the 1980s, before Wiltshire took precedence.

This connection almost seemed to be played on when a similar-style pattern was then found near the famous long barrow at Wiltshire's West Kennet on 28 July, this time in the shape of an [eight-pointed star](#) exhibiting another tidy lay. Then the ancient site of Cley Hill, near Warminster, location of so many UFO "flaps"—and several crop formations—in decades past, produced a ring of [20 wedge-like shapes](#) on 30 July.

Much farther east, the village of Roydon in Essex, home in the last few years to a number of elaborate pictograms, presented another of the "transforming" variety of patterns. A complex array of circles, rings and small "grapeshot", which arrived on 24 July, found itself with an extra circle and a new accompanying pictogram of a similar style on the 27th, with some further squiggly paths and extra grapeshot appending themselves on the 30th.

However, it fell to the Wiltshire village of Calstone Wellington to come up with perhaps [the most visually stunning](#)

[formation](#) of the season on 23 July. Made from several "layers" of yet more pentagons and five-pointed stars, its huge scale, clever configuration and crisp lines recalled some of the best overtly geometrical arrangements of the late 1990s and early 2000s. It was a favourite of the year for many aficionados.

Two Faces

Every now and then, more pictorial approaches come into play in the fields, and this year two faces, albeit of different kinds, made their presence felt in mid-July.

The first was of an [archetypal "grey" alien](#), with what looked like a radiating feather-like headdress, at Reigate, Surrey, on 19 July, one of the more distinguished of the few non-Wiltshire English designs this season.

The local Surrey Mirror had the farmer spitting anger at what he called simple "vandalism", but the face was precise and the lay inside was complex and flowing, far from the mangled mess that the report implied. Alien faces have appeared before, most famously the still-remarkable "ET and disc" of 2002 at Winchester, Hampshire.

Those who believe that such creatures are physically real point to such emblems as evidence that at least some crop formations may have extraterrestrial origins. That, or at least something is playing with our perception of what we *think* aliens look like.

On 22 July, Wiltshire produced a potentially more ancient counterpart: [another striking face](#) next to the unquestionably ancient hillfort of Figsbury Ring. This version appeared to depict a stylised feline visage beneath a ringed circle, all contained within another headdress, this time of jagged rays, perhaps resembling sunbeams.

If the circle is seen as depicting the orb of the Sun itself, it might be that the design was a modern take on the Egyptian lion goddess Sekhmet, sometimes shown with a Sun disc above her head. Less noble interpretations saw the face as the Cheshire Cat from Lewis Carroll's *Alice's Adventures in Wonderland*, a trickster presence. Either way, the formation was well rendered and seemed to fit appropriately with its alien companion at Reigate.

An English August

Peculiarly, the circles deserted the rest of the world completely in August, leaving England to provide the sole 10 events of the month.

Of these, the most prominent was the remarkable but controversial mandala discussed earlier but other Wiltshire standouts included: an elaborate six-petalled flower near the famous Westbury White Horse carving on the 4th, its distinctive jewel-shaped petals criss-crossed with fine lines; a simple, ringed circle at Etchilhampton on the 8th, distinguished by a complex "basket weave" effect and an implied pentacle in the lay; a very elaborate hexagon with rings, semi-circles and an exquisite, combed effect near Devizes on the 17th; and a series of fine semi-circles and small circles resembling a close-up of a solar system or planetary rings and moons at All Cannings on the 24th.

A [swastika design](#) at Beckhampton on the 27th, meanwhile, raised a few eyebrows, but seemed to be depicting the uncorrupted sacred version of antiquity (from the Sanskrit word *svastika*, which means "lucky or auspicious object") with central dots in between the arms.

Three other English counties donated August formations: a curious, triangulated grid at Chilcomb, Hampshire, and a [pop-art play on squares in negative and positive](#) at Chaldon, Surrey, both appeared on the 3rd, leaving Essex to close the season (at the time of writing) with an unusual pictogram based around a ringed crescent with crossbars and small circles at Rochford on the 29th.

Fluctuation and Appreciation

A total of 61 crop formations were recorded around the world up to the end of August 2016. The tally for the whole of the previous year was 87, so 2016 could yet rally.

What was notable this season was the relative quietness beyond England. The traditional heartlands of the phenomenon delivered fairly reliably, but global activity seemed subdued, despite a few highlights.

Only 15 formations appeared in other countries, a much smaller proportion than the general average. This may mean something or it may mean nothing; numbers go up and go down from year to year, and geographic diversity seems to vary as a matter of course.

Even in England itself, some counties, like Warwickshire, which have been busy in the last few years, took a semester break this season, but things may easily reactivate in due course.

After years of wondering whether the circles might die down completely, there is now an acceptance that they seem to be here to stay on at least some level. That's a nice feeling, and whatever one's standpoint on the phenomenon—whether its origin is perceived as definitively paranormal or something closer to this realm—it can

still be observed that the mystery brings out a spirit of enquiry and soul-searching that remains heart-warmingly valuable, demonstrated ably by the animated responses to the much-publicised formation we began with here.

In a world full of uncertainty and concerns, we should rejoice that ingenious beauty continues to have currency, drawing people away from anxiety and into a more focused place of contemplation, healthy debate and aesthetic appreciation. The circles remain a mystery worth celebrating.

About the Author:

Andy Thomas is one of the world's leading mysteries researchers and is the author of the acclaimed *The Truth Agenda: Making Sense of Unexplained Mysteries, Global Cover-Ups and Visions for a New Era* (Vital Signs Publishing, 2009-2013; Adventures Unlimited, 2015), and also *Conspiracies: The Facts—The Theories—The Evidence* (Watkins Publishing, 2013).

Andy is also author of five books on the crop circle phenomenon, including *Vital Signs* and *An Introduction to Crop Circles*, considered by many to be definitive guides. Andy widely lectures around Britain and the world and has made numerous TV and radio appearances. His annual crop circles roundups have been published in NEXUS for the last 17 years.

For more information, visit:

<http://www.truthagenda.org>

and

<http://www.vitalsignspublishing.co.uk>

Andy Thomas can be contacted at:

info@vitalsignspublishing.co.uk.

Crop Circle 2016 Images



Willoughby Hedge, near Mere, Wiltshire. Reported 5 June. Image: www.CropCircleConnector.com

Additional images for this crop circle may be viewed at:

<http://www.cropcircleconnector.com/2016/willoughby/willoughby2016a.html>



Ox Drove, near Wylve, Wiltshire. Reported 16 June. Image: www.LucyPringle.co.uk

Additional images for this crop circle may be viewed at:

<http://www.cropcircleconnector.com/2016/unknown1/wiltshire16062016a.html>



Blackwood, near Popham, Hampshire. Reported 28 June. Image: www.LucyPringle.co.uk

Additional images for this crop circle may be viewed at:
<http://www.cropcircleconnector.com/2016/blackwood/blackwood2016.html>



Stonehenge, near Amesbury, Wiltshire. Reported 8 July. Image: www.LucyPringle.co.uk

Additional images for this crop circle may be viewed at:
<http://www.cropcircleconnector.com/2016/stonehenge/stonehenge2016a.html>



Großziethen, near Berlin, Germany. Reported 28 June. Image: www.CropCircleConnector.com

Additional images for this crop circle may be viewed at:

<http://www.cropcircleconnector.com/2016/Ringslebenstr/Ringslebenstr2016a.html>



West Kennet, near Avebury, Wiltshire. Reported 28 July. Image: www.CropCircleConnector.com

Additional images for this crop circle may be viewed at:

<http://www.cropcircleconnector.com/2016/westkennettlongbarrow2/westkennettlongbarrow2016a.html>



The Ridgeway, near Hackpen Hill, Wiltshire. Reported 23 June. Image: www.CropCircleConnector.com

Additional images for this crop circle may be viewed at:

<http://www.cropcircleconnector.com/2016/ridgeway/ridgeway2016a.html>



Mammendorf, Bavaria, Germany. Reported 23 July. Image: www.CropCircleConnector.com

Additional images for this crop circle may be viewed at:

<http://www.cropcircleconnector.com/2016/Mammendorf/Mammendorf2016a.html>



Reigate Hill, near Reigate, Surrey. Reported 19 July. Image: MrGyro.co.uk

Additional images of this crop circle may be viewed at:

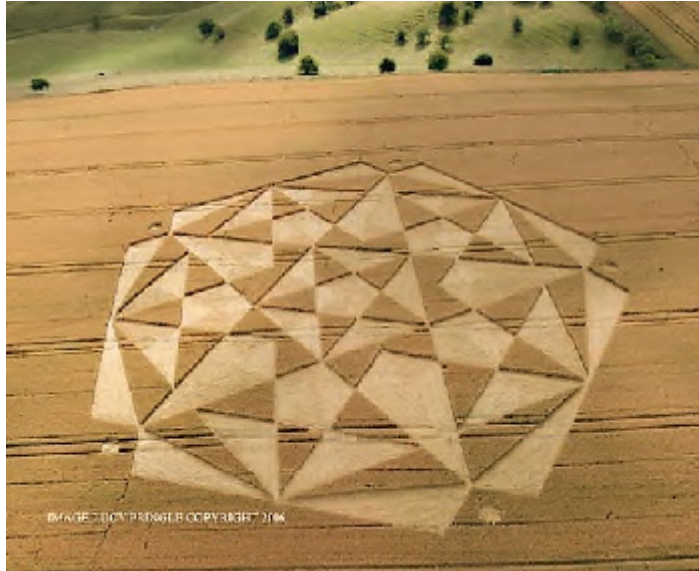
<http://www.collective-evolution.com/2016/07/20/a-stunning-new-crop-circle-has-shown-up-its-very-mysterious-pictures/>



Figsbury Ring, Firsdown, Wiltshire. Reported 22 July. Image: MrGyro.co.uk

Additional images for this crop circle may be viewed at:

<http://www.cropcircleconnector.com/2016/FigsburyRing/FigsburyRing2016a.html>



Calstone Wellington, Wiltshire. Reported 23 July. Image: www.LucyPringle.co.uk

Additional images for this crop circle may be viewed at:

<http://www.cropcircleconnector.com/2016/RanscombBottom/RanscombBottom2016.html>



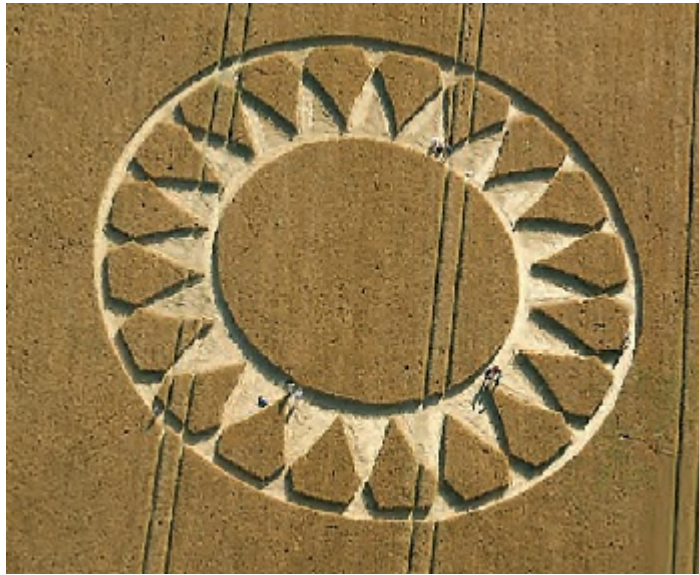
Ansty, near Salisbury, Wiltshire. Reported 12 August. Image: www.LucyPringle.co.uk

Additional images for this crop circle may be viewed at:

<http://www.cropcircleconnector.com/2016/Ansty/Ansty2016a.html>

For a unique commentary on this crop circle visit:

<http://www.cocreatorsworld.com/the-crop-circle-company-logo/>



Cley Hill, near Warminster, Wiltshire. Reported 30 July. Image: www.LucyPringle.co.uk

Additional images for this crop circle may be viewed at:
<http://www.cropcircleconnector.com/2016/cleyhill/cleyhill2016a.html>



Beckhampton, Wiltshire. Reported 27 August. Image: www.CropCircleConnector.com

Additional images for this crop circle may be viewed at:
<http://www.cropcircleconnector.com/2016/cooks/cooks2016a.html>



Sparticles Wood, near Chaldon, Surrey. Reported 3 August. Image: www.CropCircleConnector.com

Additional images for this crop circle may be viewed at:

<http://www.cropcircleconnector.com/2016/sparticleswood/sparticleswood2016a.html>

For other images of 2016 crop circles mentioned or not mentioned in this issue article visit:

<http://www.cropcircleconnector.com/2016/2016.html>



WORLD WAR II WAS AN ET BATTLE FOUGHT THROUGH HUMANS

Part I of an interview with William M. Tompkins by Linda Moulton Howe
© 27 May 2016

Six months ago in December 2015, an important book written by retired naval engineer William Mills Tompkins, and edited by Dr Robert M. Wood, was released.

The title is *Selected by Extraterrestrials: My life in the top secret world of UFOs, think-tanks and Nordic secretaries*.

In early 1942, Bill Tompkins was inducted into the US Navy, went to boot camp in San Diego and then was assigned to Naval Intelligence on advanced technology projects.

Bill Tompkins soon learned that he would be asked to reproduce complex *extraterrestrial* objects that various corporate navy contractors had learned about through intelligence operatives, and that included Nazi SS manufacturing of antigravity spacecraft.

Tompkins also learned that behind Hitler and the SS were two different species of Reptilian humanoids, including "Dracos" from the Draco constellation about 12 light-years from Earth and known as a satellite of our own Milky Way galaxy.

According to Tompkins, Naval Intelligence learned that humanoid Reptilians from the Draco constellation were manipulating Hitler to annihilate the Hebrews on Earth and populate the whole planet with blond, blue-eyed Nordics who were another type of extraterrestrial under the control of the Dracos.

Tompkins and his naval superiors were very confused by the idea that hostile Reptilians and beautiful Blond humanoids were working together to take over planet Earth. Adding to their confusion were other beautiful Nordic humanoids who helped the Allies to defeat Hitler.

Bill Tompkins was 93 years old on 30 May 2016. Before he decided to write a book about his extraordinary life, he called Admiral Hugh Webster, Navy League Corporate Director in Washington, DC, and San Diego, California. Tompkins said that they talked frankly. The subject was extraterrestrial threats to planet Earth. Tompkins said:

"After Admiral Webster read portions of my draft manuscript and backup technical documentation, I asked him, How much of this can I include in a published book?" Admiral Webster said, 'Bill, *tell it all*. This is most important to our country. Don't leave anything out'."

I conducted the following interview with William Tompkins on 27 May 2016 in San Diego, California.

William Tompkins (WT): These [intel] operatives said that Hitler and the SS made agreements with Reptilian extraterrestrials, where the Reptilians were to give the SS information on extraterrestrial vehicles, their propulsion, their controls, their operation and everything needed to build those [UFOs] and put them into production.

This was to be used for the Aryan-German SS organisations to essentially remove all of the Jewish people on the planet and any organisation that would be in opposition to the Germans taking over the planet [Earth]—every country on the planet. They made these people into slaves supporting their programs, building hundreds and hundreds of German naval battle groups, which would then be supported by kilometre-long spacecraft carriers and all types of spacecraft that would support Germany's naval battle groups out in space in conjunction with the Reptilian naval battle groups supporting them. And they would do the same thing to other stars in our region.

Linda Moulton Howe (LMH): Sir, it was my understanding that what Hitler was obsessed by was to have the Aryan Blonds take over and dominate the world and exterminate the Hebrews. Are the Reptilians that Hitler was working with Tall Blonds with vertical pupils in their eyes?

WT: No, they were exactly the same as Nordic people here on the planet. What is strange and what is hard to accept is that while I was Engineering Section Chief at Douglas, I had a Nordic blonde girl with blue eyes as my secretary for almost three years on the Apollo program.

Collaborations with ET Races

LMH: Were you getting the designs telepathically from the Blond extraterrestrial secretaries?

WT: I got much of the information from them. Their purpose here was to make certain that we developed the Apollo program, which has a different mission than what was released. The Apollo program was for the United States to go to the Moon and build a 10,000-man naval research facility on the Moon. That was Phase One.

Phase Two was for the US Navy Space Systems to develop naval stations on all of the habitable planets in our solar system and/or their moons.

Phase Three was to go to the 12 closest stars—Alpha Centauri being the first—and build US naval space bases on all of the habitable planets in the 12 closest stars.

Alpha Centauri was found to be a twin star system with very, very high radiation—actually three stars, one very faint. So we were not going to build any facilities on Alpha Centauri.

LMH: This was in collaboration with Blonds, working with the US Navy, versus unfriendly Reptilian extraterrestrials?

WT: Yes. So, what happened in Germany for this entire time, at least as I've been involved...you have to ask the question: do we have many, many Nordic-type extraterrestrial people, some of whom are wearing White Hats and some of whom are wearing...? [Telephone disconnects; LMH calls him back.]

LMH: I have no idea what happened to the phone, but let's continue. You were talking about how the Blonds that you and the US Navy were collaborating with must be White Hats, and the Blonds and Reptilians that Hitler and the Nazis were working with must be Black Hats. Can you please pick up there?

WT: Okay, some people had said there might be as many as 100 different Nordic-type extraterrestrials. I guess if you have that many, you're bound to have some that are not good people.

What Hitler was doing—what was the *real* mission of the Germans? What was *really* going on about the whole extraterrestrial situation? Germany, unlike the United States, was given extraterrestrial vehicles. Germany was given 250-foot-diameter UFOs, not just small ones.

LMH: By the Reptilians?

WT: Yes, by the Reptilians. Germany...the Germans were given the controls. They were given the communications. They were given the method of propulsion: electromagnetic antigravitational. But the point here is that Hitler and the SS at the time were given all of these types of vehicles. They were given everything in them—even food processing in the vehicles to operate out in the [Milky Way] galaxy for years at a time.

Whereas we here in the United States had to start from scratch! We had to later on [in July 1947 and other times before and after] try to decipher crashed vehicles at Roswell.

LMH: The Reptilians are giving Hitler and Germany technology that can take them into space. And yet, in the United States, all of you are struggling to understand what is happening in Germany, and the people in the United States helping you telepathically are blonde, blue-eyed secretaries.

What is the relationship between the Reptilians helping the Nazis, the Blonds helping the Nazis, and the Blonds helping the United States?

WT: You're asking the \$64 dollar question that can only be answered when you can accept that we are not just dealing with Reptilians or little Greys or whatever. We're dealing with probably *thousands* of different extraterrestrial species, some of which are just coming here, taking a look and leaving.

Others are doing their own agendas—good and bad Nordic civilisation people. And Reptilians can make themselves look like Nordics. They can also make Nordics and vice versa! So, accept that we've got White Hats and Black Hats that we're dealing with. And the most important thing is that you are living on a planet which is nothing but a laboratory that belongs to Them.

Planet Earth has been being used for thousands of years by different extraterrestrials. We are and have been just a *laboratory planet* for extraterrestrial agendas!

LMH: And a supermarket for genetic material?

WT: Yeah, right!

The Nazi SS in Antarctica

LMH: What do you really think happened in World War II? What was World War II about if the Reptilians and Hitler lost to the Allies?

WT: They didn't lose it, okay? Because we did [Operation] *Paperclip*.

Way before World War II, Germany went to Antarctica and mapped the entire area, roughly a little over a third of Antarctica, and claimed it.

Then Germany started a program to utilise caverns that were in the area that they had been investigating. So, when the agreement was made for the Reptilians to join military naval operations with the SS, the Reptilians disclosed to the SS that they had three extremely large caverns in Antarctica.

The agreement was that the Reptilians had two large caverns that the Germans could take over, and so the Germans started removing the underground facilities in Germany for building UFOs and other types of space naval battle-group ships. The Germans started taking those and putting them in very large transport-type submarines.

Halfway into World War II, the Germans had already removed substantial percentages of the production and research facilities for all types of these space vehicles and everything that was necessary to build UFOs, operate them, and train personnel to operate them in a massive program!

LMH: Are you describing Hitler removing most of the UFO technology from underground at Peenemunde to Antarctica?

WT: Yes. Research was being moved first and then the production facilities were being removed, and they took the slave labour to Antarctica so the situation would not stop even if Germany lost the war, and would not stop them from their mission to take over the planet.

ET Cloning and Secret Wars

WT: Now, this is where it gets real sticky! Since the early 1990s, first from people involved in the human abduction syndrome and then from various whistleblowers, I have heard about cloned and hybridised bodies being used as camouflage in Earth's secret wars—not only in World War II.

One long conversation I had in December 1999 was with a retired Defense Intelligence Agency analyst who said Earth is involved in a secret war between three geopolitical, territorial, non-human intelligences in conflict. He said there were Nordics, Reptilians and the Grey Ebens. He said they fight each other with manipulation of time, minds and three-dimensional holographic projections.

That was the first time I'd heard from a US government insider that he knew about the cloning technology that could create any shape and type of body containers that could then be entered and controlled by enemies— or allies—but you would then need a detection technology to be able to tell which player was in which body. Even then, you might not know for sure the truth about friendly—or unfriendly—ETs.

(Source: Extracted and edited from Linda Moulton Howe's Earthfiles.com, 11 September 2016. William Tompkins's book is available from www.Amazon.com; see review in Nexus 23/03.)

BOOKS

Reviewed by Ruth Parnell

MALADIES & REMEDIES

by Steve Price

Steve Price, PO Box 353, Mission Beach, Qld, 4852, Australia, 2015

ISBN 978-0-9581441-1-7 (408pp tpb)

Available: stehprice@gmail.com

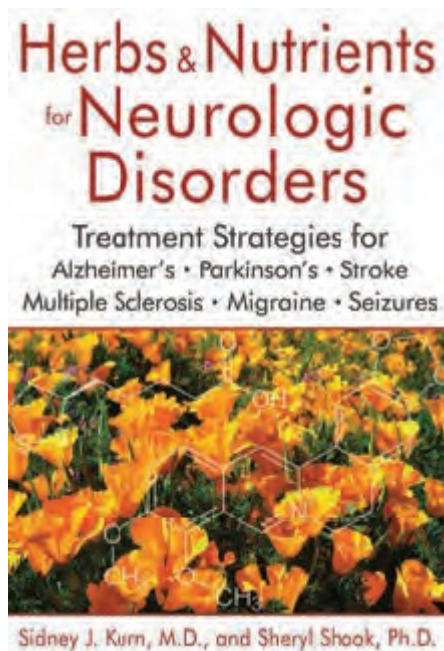
Thirty years of research and experience have informed botanist and horticulturist Steve Price in preparing his new book *Maladies & Remedies*.

It's a compendium of healing plants grouped according to their medicinal benefits in treating a wide range of health conditions including pain, digestive disorders, respiratory and nervous complaints, fevers, skin disorders, wounds and sores, eye, ear and dental problems, broken bones, parasitic infestations, hair and scalp issues and more.

A resident of north Queensland who works with the National Parks service, Price has drawn from the Aboriginal pharmacopoeia, the colonial medicine chest sourced from Britain and Europe, and traditional Asian, African, Indian and American armamentariums especially from tropical regions. Each tradition utilises herbal medicines that have been tested over the centuries.

Price also covers uses of these plants, trees and barks in leather-tanning, soap-making and clothes-washing, and as insect repellents, adhesives, lubricants and illuminants. He includes a glossary and indexes of scientific and common names.

This is a useful book for herbalists and horticulturists as well as for those who prefer home remedies.



HERBS & NUTRIENTS FOR NEUROLOGIC DISORDERS

by Sidney J. Kurn, MD, and Sheryl Shook, PhD

Healing Arts Press, VT, USA, 2016

ISBN 978-1-62055-553-8 (242pp hc)

Available: www.HealingArtsPress.com

Herbs and nutrients aren't generally part of conventional treatments in neurology, despite the mass of medical literature supporting their use.

However, neurologist Sidney Kurn, MD, and neuroscientist Sheryl Shook, PhD, have both studied herbal and naturopathic approaches and have a wealth of practical advice on how these natural substances can be used in clinical practice, based on their years of experience.

In their guidebook, first published in 2007 as *Integrated Medicine for Neurologic Disorders* and now revised and expanded, Kurn and Shook explain how specific herbs, minerals, antioxidants and supplements as well as nutritional support can help treat multiple sclerosis, Parkinson's disease, Alzheimer's disease, atherosclerosis and stroke, migraines and seizures.

These six disorders have common factors including inflammation, oxidative stress, toxic exposure, mitochondrial dysfunction and nutritional deficiency.

Kurn and Shook discuss the biochemical role of each herb and supplement, and advise on dosage, contraindications and potential side-effects relevant for each neurological condition. They also emphasise the importance of good-quality sleep in helping treat these disorders, and give sleep-wellness tips. Their book is an essential reference for patients, families and practitioners alike.

RISING FROM THE DEAD

by Suzanne Humphries, MD
Dr Suzanne Humphries, USA, 2016
ISBN 978-0-69264-818-6 (399pp tpb)
Available: www.Amazon.com

The title of this book by Suzanne Humphries, MD, is quite apt considering its autobiographical subject matter. Dr Humphries gained a physics degree before becoming a doctor of medicine and going on to specialise in internal medicine and nephrology and work in hospitals.

Eventually Humphries realised from her challenging experiences in institutionalised medicine that many medical practitioners are like the "walking dead", and that conforming to unscientific protocols and policies was compromising her ethics and the health of her patients.

In speaking out, Dr Humphries was ostracised by her colleagues. In 2011, a move into private practice in Virginia—her own resurrection—enabled her to treat patients in ways that she couldn't within the system, working with them to manage their health problems without having to resort to pharmaceutical drugs.

Dr Humphries has several key focuses (see www.drSuzanne.net), one of them vaccinations. Her research into the history of the polio vaccine led to her writing *Dissolving Illusions: Disease, Vaccines, and the Forgotten History* with Roman Bystryanyk (see 21/05).

Her book *Rising from the Dead* contains deeply personal stories, has a spiritual/religious tone in parts, and offers reassurance to disillusioned medics. It may also prompt people to reassess the quality of health care they're receiving from their doctors.



FOOD FORENSICS

by Mike Adams

BenBella Books, Texas, USA, 2016

ISBN 978-1-94036-328-8 (381pp tpb)

Available: www.benbellabooks.com

Known as "The Health Ranger", journalist Mike Adams is the founder and editor of the popular NaturalNews.com website.

He's also a hands-on scientific researcher who has his own ISO-accredited high-tech lab where he tests foods and supplements for heavy metals and other toxins. What he's discovered is eye-opening and makes us think about the safety of what we consume.

Adams has written Food Forensics to "break the conspiracy of silence" among health authorities and food/supplement companies by revealing the toxins in typical groceries, superfoods, organic products, dietary supplements and pet snacks. Often the heavy metals are sourced from food grown in contaminated soil.

Adams has been threatened and discredited, and he was even offered money not to proceed with his book.

In part one, Adams highlights the biochemical effects of toxic elements and how to remove them from the body. He covers heavy metals like arsenic and mercury; chemical contaminants including hexane and pesticides; food contaminants such as aspartame and artificial additives; and toxins in animal feed. Next, he presents his guide to natural detoxification, noting that "healing crises" are unnecessary. Finally, he provides several years of analysis data gathered from his testing.

Adams urges the USDA and FDA to set universal limits on heavy metals that pollute our food supply and our bodies. An impressive exposé.

SOUL BREATHING

by Carrie L'Esperance

Bear & Company, VT, USA, 2016

ISBN 978-1-59143-249-4 (312pp tpb)

Available: BearandCompanyBooks.com

What's underlying our planetary crisis is an imbalance between understanding how the physical and spiritual realms work together as one.

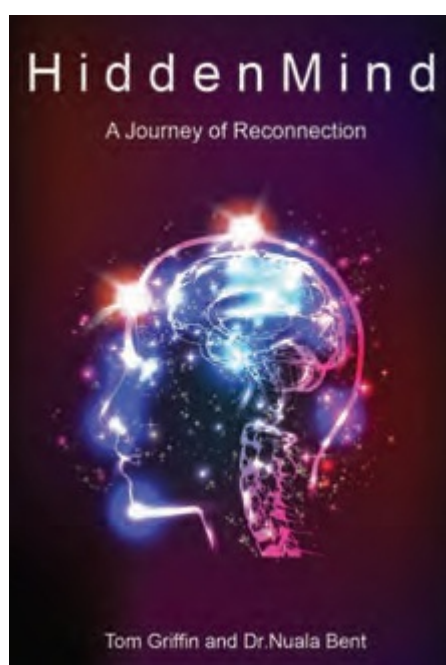
We need to connect with the spiritual heritage underlying our strength as humans. This heritage, called Soul Breathing, offers a way to transmute polarised thinking and connect with our heart centre's intuitive stillness.

Californian artist, iridologist and detox diet author Carrie L'Esperance has been researching the healing practices of traditional cultures for over 35 years. Here she explains that when we have a true link with our soul's intelligence and cultivate the reception of higher frequencies, we can soul breathe and absorb more life-sustaining pranic energy.

Her self-mastery technique can restore the flow of spiritual light in our lives. Her exercises assist spiritual alignment with physical, emotional and psychic cleansing, aura/chakra strengthening and oracular dreaming.

Our modern world with its high-tech gadgetry has created conditions that inhibit our natural abilities and spiritual power. L'Esperance shows how EM frequencies impinge on our telepathic and intuitive abilities, overpower cellular integrity and suppress the immune system.

L'Esperance also describes the spiritual biogeometry of light and the holographic principle, and includes testimonials from people exploring self-mastery. A transformative book for humanity at the crossroads.



HIDDEN MIND

by Tom Griffin and Dr Nuala Bent
Biosciences, Ireland, 2015
ISBN 978-0-9932867-0-4 (117pp tpb)
Available: www.hiddenmind.ie

Good health requires a balance between our physical, emotional, mental and spiritual states, and it's within our power to tap our subconscious mind for self-healing.

For nearly 30 years, Tom Griffin has been practising in Ireland as a healer and developing his own programs based on knowledge of the body's electrical systems. His technique, HiddenMind, includes bioenergy, vibrational kinesiology, and investigative and corrective sound protocols.

Griffin has incorporated other systems, for instance from the Dawson program as well as muscle testing, dowsing, neurolinguistic programming and touch-for-health therapy. He refers to the research of many new-science thinkers from Gregg Braden and Jeremy Narby to Bruce Lipton and Candace Pert.

For this book, Griffin is joined by former academic and complementary therapist/Reiki master Dr Nuala Bent in

explaining what's behind this energy-healing system. They cover the metaphysics of change, quantum physics, biofields, chakras, meridians, transformational consciousness, epigenetics, placebos and more.

This HiddenMind therapy can correct physical and emotional conditions acquired at birth and even across generations, and can treat a variety of previously insurmountable problems, as attested by the many testimonials in this book. Hidden Mind presents many insights intrinsic to the 21st-century healing paradigm.

44: BASED ON AN EX-SOLDIER'S TRUE STORY

by Bill Brooks & Joanna Summerscales

Create Space, 2016

ISBN 978-1-53075-447-2 (224pp tpb)

Available: www.theetnewsroom.com

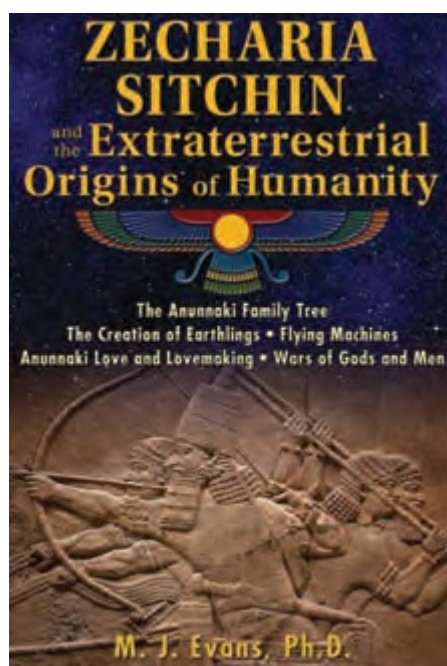
Bill Brooks, a musician and former British Special Forces soldier, has an extraordinary story to tell, but he didn't become aware of the incredible details till he was 44 years old, over 20 years ago.

That was when he experienced a series of anomalous events involving sightings of strange craft and aliens staring out of the TV at him. What followed was a massive "download event" which led to his recovering memories about alien abductions going back to childhood, a mass military abduction event that he was part of, and a tractor beam-up into an alien craft which he shared with a cow that was later returned to the ground in a mutilated state.

With the assistance of abduction experienter supporter and regression/quantum realignment therapist Joanna Summerscales, Brooks has pieced together these incidents into a coherent whole, telling his stories with candour and a touch of humour. He's had interactions with ETs including Nordics, Reptilians, a Tall entity and Greys.

He's been harassed by Freemasons, Men in Black and even the police, has had numerous experiences with UFOs, and has been subjected to implants and tissue sampling. He's also had many synchronicities and psychic episodes.

Brooks feels that his experiences have "forced a kind of evolution" in him. He still has secrets locked away which may come to the surface some day. An engrossing, "out there" read.



ZECHARIA SITCHIN AND THE EXTRATERRESTRIAL ORIGINS OF HUMANITY

by M. J. Evans, PhD
Bear & Company, VT, USA, 2016
ISBN 978-1-59143-255-5 (228pp tpb)
Available: BearandCompanyBooks.com

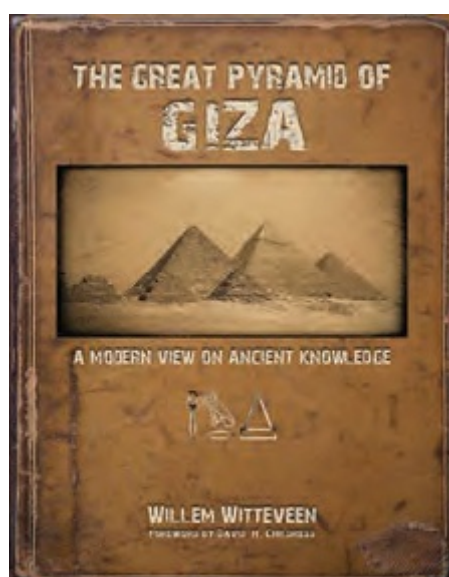
Following on from her 2011 book *The Legacy of Zecharia Sitchin* (18/06), environmental geographer Dr M. J. Evans draws on more insights from her 20-year association with scholar Zecharia Sitchin (1920-2010).

Evans focuses on Sitchin's interest in the Nefilim who were said to have led the Anunnaki from the planet Nibiru, according to his interpretations of the Sumerian and Akkadian clay tablet records. She explores Sitchin's research into the Anunnaki as astronauts from space, their family tree, their creation of Earthlings and their sexual relations.

Evans restates Sitchin's view that earlier translators of the clay tablets had no knowledge of space travel and so could not have regarded the Anunnaki as space travellers; instead of twigging to the reality of space flight, they reverted to myth.

She revisits Sitchin's evidence for ancient wars of "the gods", and wonders whether we've inherited a tendency for war. Evans considers the idea of Armageddon or catastrophe, past and future, which Sitchin added to from his biblical and ancient history research. She reminds us that he said "the past foretells the future".

Evans closes with Sitchin's 2001 article "The Case of the Evil Wind", on Sumer's nuclear demise, and recalls Sitchin's prediction of the Anunnaki's return as well as a possible nuclear event in 2024 AD. Only time will tell.



THE GREAT PYRAMID OF GIZA

by Willem Witteveen
Frontier Publishing, Amsterdam, and Adventures Unlimited Press, USA, 2016
ISBN 978-19-39149-62-6 (386pp hc)
Available: www.frontierpublishing.nl
www.AdventuresUnlimitedPress.com

A welcome approach to the study of the Great Pyramid comes in this beautifully produced, large-format hardcover book by Willem Witteveen. With a background in nautical sciences and engineering, Witteveen now devotes his time to researching history, especially predynastic Egypt.

In his book, first published in Dutch in 2012, Witteveen examines the pyramid in terms of the elements of earth, water, air and fire and the overarching fifth element, the aether. The Great Pyramid serves as a library of knowledge, Witteveen says, the basis for an inheritance that's connected by past, present and future.

Key to its understanding is resonant frequency, and Witteveen addresses subjects such as antennas, standing waves, sound amplification, harmonics, the 81-Hz frequency as a higher harmonic of the golden frequency (used for fine-tuning the pyramid's resonance chamber), and the natural standard 432 Hz frequency that's considered the tone of nature.

The aether as the divine fifth element can be regarded as the carrier of information and is associated with the mythical Bennu bird. In effect, the Great Pyramid performed as the true philosopher's stone, gathering the five elements and fusing them, resulting in energy bursting forth into earthly creation.

Witteveen consults historical and modern-day research, and presents archival diagrams and colour photos taken from angles not often seen.

He's backed up by explorer/author David Hatcher Childress in the foreword. A magnificent work.

EXTRATERRESTRIAL SANDS

by Gary Gilligan

Matador/Troubador Pub., UK, 2016

ISBN 978-1-78589-169-4 (282pp tpb)

Available: www.godkingscenario.com

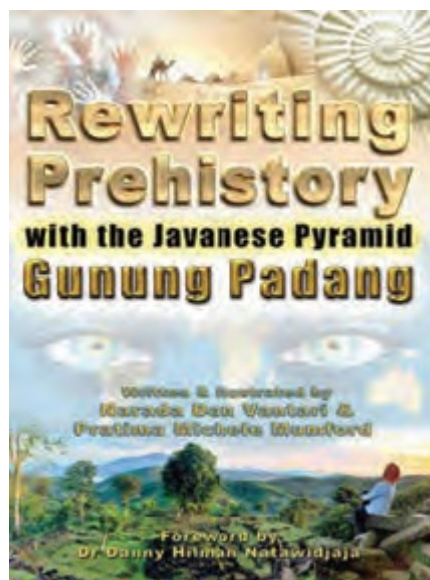
Have you ever stopped to think where all the world's sand comes from? Gary Gilligan, catastrophist and author of the *God King Scenario* series, has—and he concludes that the quartz grains in deserts and on beaches could not have come from the erosion of granite or even sandstone.

Any rock sources would have to be five times larger in volume to account for the vast quantities of sand in evidence in places like the Sahara Desert, the Arabian Desert, the Namib Sand Sea, the Gobi, the Great Sandy Desert, the compacted Navajo Sandstone and more.

From his analysis of research studies and sand grain shapes and compositions, Gilligan reasons that the sand rained down on Earth from space—specifically from Mars when it had many violent encounters with Earth in past millennia.

The sand is a by-product of rock vapour (and tons of sediment that also fell to Earth) which condensed out of our planet's atmosphere as tiny quartz grains. Moreover, he contends that geological dating is wrong and that these catastrophic events took place recently enough that they're noted in ancient Egyptian records.

Egyptology is Gary Gilligan's chief interest, and he includes his thoughts on what the ancient Egyptian world would have looked like with a red Sun and sky. He maintains that the chaos of the solar system dictated the ancients' lives. Gilligan's thesis is original and intriguing.



REWRITING PREHISTORY WITH THE JAVANESE PYRAMID GUNUNG PADANG

by Narada Dan Vantari & Pratima Michele Mumford
A New Science of Everything Press, Australia, 2016 (50pp tpb)
Available: www.aNewSci.com
www.RewritingPrehistory.com

Evidence is mounting for an advanced prediluvial civilisation as well as for what led to its demise. The key date for a catastrophic event that caused rises in temperature and sea level was 11,600 BP, and this event may have involved a cometary impact.

There are remnants of this pre-cataclysm civilisation, if not the lost Atlantis, in what's left of the Sundaland subcontinent in Southeast Asia. A fascinating example is the Gunung Padang artificial pyramid structure in Java, Indonesia, that has been dated at its oldest levels to between 23,000 and 28,000 years ago.

Authors Vantari and Mumford visited Gunung Padang in 2015 and were treated to a guided tour with geologist Dr Danny Natawidjaja and his team. Their colour booklet, with a foreword by Natawidjaja, builds on their article in NEXUS 23/02.

Natawidjaja rediscovered the pyramid in 2011, but the Indonesian government hasn't yet produced the promised funding for the site to be explored in detail. What has already been uncovered is astounding.

Vantari and Mumford's photos of layers of andesite plinths used in construction of the pyramid show evidence of a long history, and the structure may have survived the cataclysm because of its height and location. These exciting findings will force a rewriting of the history books.

THE MEMORY CODE

by Lynne Kelly
Allen & Unwin, NSW, Australia, 2016
ISBN 978-1-76029-132-7 (326pp tpb)
(Atlantic Books, UK, Pegasus Books, USA, 2017, ISBN 978-1-68177-325-4)
Available: www.BookDepository.com
www.lynnekelly.com.au

While working towards a PhD on animal behaviour and Aboriginal stories, Lynne Kelly became intrigued by how the elders could memorise vast amounts of detail about their landscape and all the plants, insects and animals that inhabit it.

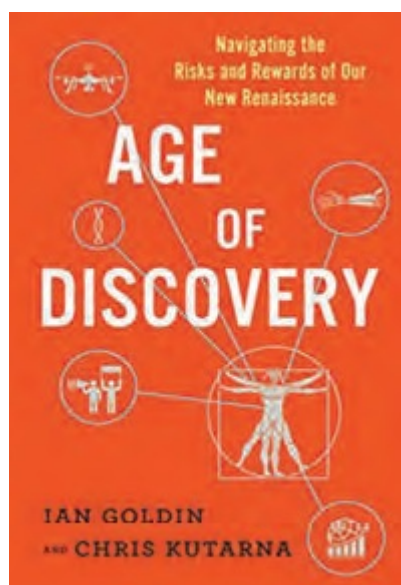
She discovered that the songs, dances and mythical stories are aids for storing information, and that singing the names of sacred sites along their songlines reveals more subheadings of knowledge that can be accessed.

A visit to Stonehenge made her realise that the ancients were replicating sacred landscape places in the stones, each serving as an aid in calling up their oral history. Kelly concludes that indigenous cultures worldwide relied on these systems.

In *The Memory Code*, Kelly explores the monumental memory spaces of Stonehenge, Avebury, Orkney, Newgrange, Carnac and Gobekli Tepe as well as the pueblos of Chaco Canyon, the Nasca lines of Peru and the earthworks of North America.

She homes in on the memory skills of the Polynesian navigators as well as the ancient Greek orators who used streetscapes to help them remember their speeches. She also investigates smaller-scale memory joggers from knotted strings and memory boards to notched sticks and totem poles.

Dr Kelly has developed a memory system based on what the ancients utilised: the brain's hardwiring that allows the use of structured spaces for storing knowledge. Her argument is mind-blowing and revolutionary.



AGE OF DISCOVERY

by Ian Goldin and Chris Kutarna

Bloomsbury Information, London and New York, 2016

ISBN 978-1-4729-3637-0 (312pp hc)

Available: www.bloomsbury.com

We're in the midst of a New Renaissance, but how long it lasts depends on how well we navigate the inevitable dangers while encouraging a flowering of creativity. Europe's Renaissance c. 1450 to 1550 has much to teach us today, because while it nurtured a blossoming of art, science and philosophy it also brought on major social disruption.

Today we're still dealing with financial collapses, globalisation has diverted jobs to distant regions, new technologies and systems are changing the way we work, and we're beset by challenges presented by the rise of xenophobia and extremism as well as the growing refugee crisis.

In *Age of Discovery*, Oxford-based Professor Ian Goldin and Dr Chris Kutarna suggest we can learn much from the original Renaissance and apply it to our global-level New Renaissance while it's still a work in progress. It's especially important, they argue, to have a perspective on the big change-drivers in our lives.

Their prescription for weathering the global storm includes advice for business, government and civil society on how to magnify genius and mitigate risk by cultivating such virtues as honesty, audacity, dignity and sharing. Their recommendations include tax reform, social safety nets and intellectual property protections.

The power to reshape our world and keep our New Renaissance on track is in our hands, the authors say in their

thought-provoking, big-picture take on our uncertain times.

**CONFESSIONS OF AN ILLUMINATI Vol. II:
The Time of Revelation and Tribulation Leading up to 2020**

by Leo Lyon Zagami

CCC Publishing, San Francisco, 2016

ISBN 978-1-8887296-27-7 (366pp pb)

Available: www.CCCPublishing.com

www.IPGBook.com

The agenda for a New World Order is real and it includes a plan to implement a World War III scenario by 2020, according to former Illuminati member Leo Lyon Zagami in volume two of his *Confessions* series.

Zagami has a pedigree with roots in Italian/Sicilian nobility with Freemasonic heritage as well as in Scottish nobility, again with Freemasonic links (Lyon is his middle name). His bloodline and high-level Freemasonic initiation created unusual connections, but his "seeing the light" and "spilling the beans" landed him in prison. Undeterred, he continues to expose undercurrents at play in many countries.

Zagami delves deeply into the occult machinations and control mechanisms behind the NWO power play, exposing how Freemasonry and secret societies everywhere are being infiltrated by Satanists. He reveals that the major forces working towards a world government are Jesuits in cahoots with Zionists.

But the other key hand, he says, is China with its own brand of Freemasonry operating behind the scenes. Zagami tells the ongoing story of the Dragon Family and some mysterious, confiscated bonds, among many extraordinary tales and historical details that are not for the faint-hearted.

For anyone caught up in this shady network, Zagami has tips on psychic defence. His book names names and uncovers a disturbing world that's far removed from the masses.

DVDs

Compiled by Richard Giles

2016 NEXUS CONFERENCE

produced by NEXUS Magazine, 2016

(13 DVDs, approx. 90 mins each)

Available: NEXUS Magazine, PO Box 307, Maleny Qld 4552, Australia, tel (+61)7 5442 9280

website www.nexusmagazine.com

download or stream from <http://tinyurl.com/hqmy5eu>

In June 2016, hundreds gathered for the annual NEXUS Conference on the Sunshine Coast, Queensland, to take in three days and two nights of fascinating, inspiring talks and presentations. Here is a roundup of the 2016 Conference DVDs.

1. Gut Health, with Don Chisholm. Don shares the simplicity of being healthy, as well as the latest research on maintaining a healthy gut ecosystem and new cures for disease.

2. Scalar Energy and Electromagnetic Protection, with Mark Langdon. Mark discusses scalar energy, the effects of EM fields, and EM protection including the development of Blushield devices.

3. Indonesian Ancient Mystery Sites, with Narada Firebird Vantari and Pratima Mumford-Sephton. Narada and Pratima revisit Java's Gunung Padang pyramid, possibly the oldest and most sophisticated pyramidal structure in the world.

4. Giants: the Suppression of Reports and Evidence, with Hugh Newman. Hugh explains via Skype the historical existence of giants and why science and scientific institutions cover up reports and hard evidence.

5. The Medical Dictatorship, with Jon Rappoport. Jon via Skype gives a humorous yet biting talk on the ultimate agenda of a medical police state and Big Pharma's blatant distortion of medical information.

6. Parallel and Secret Space Civilisations, with Dr Michael Salla. Via Skype, Michael presents his findings on the secrecy surrounding current space civilisations and the extent of the Earthly UFO cover-up.

7. Missing Persons Conspiracy, with David Paulides. David looks at common features of large numbers of missing-persons reports in the USA and Australia, and asks why so many cases are ignored or remain unsolved.

8. Q&A, with David Paulides, then Artificial Intelligence and "Black Goo", with NEXUS Editor Duncan Roads. David addresses questions on missing persons with Duncan, who then gives an overview of "black goo" and its role in Earth's past, present and near future.

9. Artificial Intelligence and "Black Goo", with David Griffin then Alec Newald. David and Alec make separate presentations via Skype on AI and "black goo". Is this lifeform terraforming our planet or designed to terrify humanity?

10. DNA Activation, with Brendan Murphy. Co-founder of the Global Freedom Movement, Brendan speaks about upgrading and activating our DNA and shows a way to accelerate our awakening and evolution.

11. UFOs and Disinformation, with Karen Ong. Karen reviews the evidence and fallout from the May 2015 Mexico City "Be Witness" presentation of an alleged ET body.

12. Medicinal Cannabis and Big Pharma in Australia, with Steve Parker. Steve reveals Big Pharma's plans to control the medical applications of the cannabis plant, and considers Cannopathy as a legal complementary therapy.

13. Afterlife, Interdimensional Existences and Alternate Realities, with Peter Smith. Peter highlights new research from the Institute for Quantum Consciousness that confirms our ability to move beyond time, space and physical form.

14. Special Boxed Set. This set includes DVDs of all 13 presentations at the 2016 NEXUS Conference.

MUSIC

Reviewed by Richard Giles



ONWARDS TO MARS!

by Fanfare Ciocarlia

Asphalt Tango Records, 2016 (45mins)

Distributors:

Australia—The Planet Co., www.theplanetcompany.com

Germany—Asphalt Tango Records, www.asphalt-tango.de

Fanfare Ciocarlia, the world's preeminent brass band, is celebrating its 20th anniversary this year. The group began in a tiny village in northeastern Romania, and has gone on to conquer the world. Each Ciocarlia album has topped the World Music Charts Europe, driven fans crazy and inspired fellow musicians.

The highlight track here is a hot, crazy version of "I Put A Spell On You". Fanfare Ciocarlia does its gypsy brass band beat with exciting, frantic, dance performances. The band digs deep into its rural Romanian roots for this album. Dance all night long!

BEATING HEART - MALAWI

by various artists

Beating Heart Project, UK, 2016 (2CDs, 51+53mins)

Distrib:

www.theplanetcompany.com

UK —www.beating-heart.co.uk

The first in a new series of charity compilations, *Beating Heart - Malawi* features remixes of 21 tracks from the International Library of African Music's archive. Ethnomusicologist Hugh Tracey (1903-1977) made 35,000 field recordings across Sub-Saharan Africa from the 1920s to 1970s.

Today, his bid to preserve this music lives on with the Beating Heart Project that's taken the archive to contemporary record producers. Profits go to the Love Support Unite Foundation, which provides nutritional and gardening education programs in schools. Fantastic music to dance to and support Malawi.

MONISTIC THEORY

by Joe Driscoll & Sekou Kouyate
Cumbancha, USA, 2016 (40mins)

Distrib:

www.theplanetcompany.com

USA — www.cumbancha.com

www.joeandsekou.com

Joe Driscoll and Sekou Kouyate's second album, *Monistic Theory*, derives its title from their view that everything is a unified whole. These two have joined up from vastly different musical backgrounds in search of their shared artistic expression.

Sekou Kouyate, from Guinea, is a virtuoso player of the kora, the 21-stringed West African harp. Joe Driscoll is a funky guitarist. Together they combine as a lively duo. They've developed a tight sound with kora and guitar, integrating with African, funk and rap streams from their rhythm section. A must listen.

ANIAN

by 9Bach

Real World Records, UK, 2016 (2CDs, 50+27mins)

Distrib:

www.theplanetcompany.com

UK — www.realworldrecords.com

A Welsh-language band, 9Bach has released its third album, a stunning, soulful recording centred around composer-pianist Lisa Jen's creative lyrics. 9Bach's disc no. 1 is Anian, with brooding songs that take a meaningful look at the world. Anian is Welsh for "nature, the natural order, the natural world, creation".

With Lisa's moving vocals, the shimmering three-part harmonies and some unusual instruments, it's an amazing experience. Disc no. 2 is In Your Voice, featuring poetry readings from artists who were asked to retell the stories of each song on the first disc. Powerful Welsh consciousness CDs.

Cartoons

by Phil Somerville



'Would you like to review us?'



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STATEMENT OF PURPOSE

NEXUS recognises that humanity is undergoing a massive transformation. With this in mind, NEXUS seeks to provide 'hard-to-get' information so as to assist people through these changes. NEXUS is not linked to any religious, philosophical or political ideology or organisation.

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